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TUSKEGEE INSTITUTE

Center for Rural Development
International Rural Development



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FIRST ANNUAL REPORT
COMPREHENSIVE PLAN FOR
RURAL DEVELOPMENT

November 1, 1978

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I: GRANT TITLE: COMPREHENSIVE PLANNING FOR RURAL DEVELOPMENT

211(D) Annual Report

Date Due: November 1, 1978

Date: November 1, 1978

GRANTEE: Tuskegee Institute

GRANT PROGRAM DIRECTOR: Glenn R. Howze

AID SPONSORING TECHNICAL OFFICE: Development Assistance Bureau

A. Statistical Summary

Period of Grant: September 1, 1977 to August 31, 1978
Amount of Grant: \$750,000.

Expenditures for Report Year FY 1978. Accumulated
\$ 101,773. Anticipated for next year \$198,927.

B. Narrative Summary

1. Principal accomplishments of grant for FY 1978:

During the first year of its 211-d grant, Tuskegee Institute was able to make substantial progress toward the realization of the grant objectives.

Shortly after the grant was awarded it was moved administratively to the Tuskegee Institute Center for Rural Development in the School of Applied Sciences. An Advisory Council for the grant was appointed with representatives from across campus.

The principal accomplishment during the first year of the grant can best be summarized as outputs under the five objectives of the grant:

a. Research (Expanded Knowledge Base)

- (1) Tuskegee team identified appropriate research activity in Mali and negotiated a supplemental research contract with USAID/Mali. The research was titled: Study of Extension Sciences in Mali.
- (2) Tuskegee team provided 5 mm in Mali conducting the first phase of the study.

b. Education and Training

There are 4 subcategories for this objective:

(1) Student Support.

Two undergraduate and four graduate students were supported during the first year of the grant. Students were involved in a development seminar and were assigned to work with project staff.

(2) Workshops and Seminars

Several workshops and seminars were attended and/or sponsored during FY 1978.

- a. The 211-d project organized a session at the Annual Meeting of the Society for Applied Anthropology titled: Social Science Education for Regional Development attended by William Vickers and Glenn Howze in Merida, Mexico.
- b. Willie Baber conducted a seminar on campus titled: Economy, Society and Change: Morne Paysan (Martinique) Twenty Years Later.
- c. Suchet Louis attended the International Nutrition Workshop at Massachusetts Institute of Technology.
- d. David Libby and John O'Sullivan attended the Arid Lands Conference in Denver, Colorado.
- e. William Vickers attended the Symposium on Development in the Tropics.
- f. Glenn Howze attended the Population and Food Policy Conference in Washington, D.C.

(3) Curriculum Modification

- a. Two existing courses were revised to include more international development content related to development.
- b. Five new courses in anthropology were related to development approved by the Institute.
- c. Two new faculty members, an anthropologist and an agricultural economist were added to the staff.

(4) Faculty Training

1. During FY 1978 one faculty member, Doris Oliviera, started French Language Training at the Foreign Service Institute in Washington, D.C. Another, Glenn Howze, was approved for training.
2. Glenn Howze, William Vickers and John O'Sullivan completed the Design and Evaluation Workshop conducted by USAID/W.
3. Doris Oliviera, attended the Agricultural Science in Africa workshop in Ibadan, Africa.

c. Advisory and Consultative Services

- (1) The project published a brochure, Tuskegee Institute and International Development which outlines the Institute's experience and interest in international programs.
- (2) Two man months of faculty release time were made available for advisory and consultative services.
- (3) Contact was made with the missions in Jamaica, Guyana, the Gambia, and Senegal concerning possible involvement of Tuskegee personnel in advisory and consultative roles. Contact was made with AID/W personnel in all major Bureaus concerning possible Tuskegee involvement.

- (4) Tuskegee faculty members served as project design officer on a USAID project design team to Upper Volta. Dr. Suchet Louis represented Tuskegee on SECID team for 1.5 man/months.

d. Linkages and Networks

(1) Domestic Linkages

Domestic linkages were fostered by:

- a. Supporting participation in BIFAD meetings.
- b. Supporting participation in meetings of 1890 Land Grant Schools.
- c. Supporting contact with other 211-d schools.
- d. Supporting participation in relevant professional organizations.
- e. Supporting participation in SECID meetings.

(2) International Linkages

International linkages were fostered by supporting site visits to Jamaica, Guyana, the Gambia, Mali and Senegal to explore possible Tuskegee involvement in Mission activities.

e. Information Capacity

Information capacity was increased by:

- (1) The acquisition of relevant books and journals for the library.
- (2) The acquisition of computer data analysis programs, computer models and data bases related to international development.
- (3) Publication of the Proceeding of the Symposium on Social Science in Regional Development and the brochures: Tuskegee Institute and International Development.

C. Detailed Report

1. General Background and Description of Problems

The Grant recognizes urgent need in most developing countries to improve the performance of their overall economic and social development. In many developing countries, food production has barely kept pace with population growth, while in Africa and parts of other continents per capita food production has actually declined. This inadequate output growth is in spite of massive expenditures on agricultural programs, including billions of dollars of external development assistance. This assistance, while increasing the production of a few basic grains grown largely in irrigated areas, has failed to solve many problems that require much more attention if LDCs are to have the capacity to produce adequate food for their burgeoning populations in the future.

The situation in many countries is even less satisfactory in regard to objectives other than increasing food production such as improving income distribution, reducing underemployment, raising productivity and levels of living of the rural and urban poor, and maintaining price and balance-of-payments stability. Countries and international assistance agencies are placing priority on programs whose benefits will be widely distributed by the output and productivity increasing process itself, rather than deferring concern with equity objectives until adequate output levels have been achieved.

Tuskegee Institute, through almost 100 years of developing solutions to human and community resource development problems among disadvantaged people, now recognizes the need for the involvement of "the people to be served" in the planning and in program implementation. While it has been determined that the need for involvement is paramount, it is recognized that adequate expertise among local citizens in these situations is usually nonexistent. To bridge this all important gap, there is an urgent need for a cadre of professionals in this country and in LDCs capable of providing technical assistance in the broad areas of human resource and community development with emphasis on such specialty areas as (1) improving income distribution, (2) reducing underemployment, (3) raising productivity and levels of living among the rural and urban poor, and (4) improving the general welfare.

Tuskegee Institute has a very long history of successful involvement in helping limited resource people. In the early years of Tuskegee Institute, this group constituted its only clientele. Through this involvement, Tuskegee acquired a commitment to serve the disadvantaged. Today this commitment stands as a major focus of this institution. Through this functional commitment, Tuskegee has amassed unusual expertise in dealing with the problems of the poor.

This expertise has been acquired, not only in the United States, but also in many foreign countries in South America, the Caribbean, West Africa and Asia. Thus, historically, Tuskegee Institute has been involved in, and committed to rural development. It is significant to note the parallelism which exists between the priorities of AID and the comprehensive (educational, research and extension) objectives of Tuskegee Institute. Both by design and by demand, Tuskegee Institute's objectives have concentrated on the human resource and community development needs of disadvantaged people of the deep South. Subsequently, Tuskegee's influence was extended first to the nation, and then, to the developing nations of the world.

Agency priorities are now focused generally on programs aimed at a predominately rural target group and in the key areas of food production, nutrition, population, health, education and human resources. Mission request for technical assistance accordingly have focused on these areas of concern as well. And increasingly, the Agency is promoting programs that are designed specifically for the most disadvantaged segments of the LDCs.

Therefore, the focus of Tuskegee's grant--Comprehensive Planning for Rural Development meshes well with current and anticipated future demands and opportunities within the Agency. The major thrust of Tuskegee's 211-d grant will

be in the areas of agricultural economics, economics, and the other social sciences. The effort focuses on problems associated with the transfer of appropriate technology to poorly-educated, traditional producers in varying social and cultural contexts. Four sub-areas of Comprehensive Planning for Rural Development are being emphasized by Tuskegee: farming systems, community organization, marketing and new lands development and management.

In view of the discussions above, Tuskegee Institute's 211-d grant proposal seeks to strengthen the Institute's capacity to respond to the Agency's needs and to the needs of developing countries in the area of rural development. This project will emphasize a multi-disciplinary approach to rural development through the involvement of several disciplines including (1) agricultural economics, (2) economics, (3) rural sociology, (4) anthropology, (5) extension, (6) education, (7) agriculture, and (8) veterinary medicine.

The grant funds are being used for (1) faculty growth and development, (2) advanced undergraduate and graduate student support, (3) domestic and international travel for the purpose of research and the development of networks and linkages, and (4) library and other information holdings.

In general, the grant is being directed toward developing programmatic capabilities required by AID including project identification, design analysis, implementation and evaluation.

2. Purpose of the Grant

The purpose of this grant is to develop Tuskegee Institute's responsive capability and multidisciplinary capacity to assist LDCs in the general area of Comprehensive Planning for Rural Development emphasizing farm systems, marketing, community organization and new lands development. The 211-d grant enables Tuskegee Institute to provide technical assistance to LDCs with an emphasis on technology and technology transfer for small-scale agriculture recognizing that (1) the vast majority of people in the LDCs are involved in subsistence and/or small scale agriculture, and (2) that one of the major deterrents to development efforts in LDCs is the development of appropriate methodologies for the transfer of technology to poorly educated traditional producers in varying social and cultural contexts, the major thrust of the project will be a multidisciplinary social science approach involving the disciplines of economics, agricultural economics, rural sociology, anthropology and extension. Where appropriate, the grant also involves personnel from agriculture, animal science, veterinary medicine and other technical areas.

In order to achieve an enhanced capability in the area of Comprehensive Planning for Rural Development, the grant focuses on five activities/outputs: research (expanded knowledge base), education and training, advisory and consultation services, the development of linkages and

networks, and increasing the Institute's information capacity. These activities are designed to prepare the Institute and its personnel to be able to respond to the Agency's and others' needs in the broad areas of project identification, design, analysis, implementation and evaluation.

3. Objectives of the Grant

A. Objectives Restated

The expected outputs from the 211-d grant can be grouped into five categories:

(I) Research (Expanded Knowledge Base)

- a. General literature reviews and consultation with recognized experts on selected topics.
- b. Development and execution of selected research projects in selected LDCs.

(II) Education and Training

- a. Support for graduate and undergraduate students in academic programs related to rural development and international agriculture.
- b. Workshops and Seminars
- c. Curriculum modifications designed to improve Tuskegee Institute's offerings in International Rural Development.
- d. Language training for faculty

(III) Advisory and Consultation Services

- a. Create and maintain a handbook detailing Tuskegee Institute's experience and interest in international programs and providing detailed resumes of individual faculty members interest and experience in international work.
- b. Provide release time for faculty to respond to requests from USAID and other donors for advisory services.

(IV) Linkages and Networks

- a. Strengthen and develop new ties with 1890 and other minority institutions and firms involved in international work.
- b. Strengthen and develop new ties with 1862 and other U.S. institutions and firms doing similar work in LDC's.
- c. Develop linkages with USAID regional bureaus and missions.
- d. Develop linkages with LDC's and other donors.

(V) Information Capacity

- a. Acquisition of books, journals and other library materials.
- b. Acquisition of computer models and data bases.
- c. Publication of seminar and research reports.

B. Review of Objectives1. Research

The objectives of Tuskegee's research activities is to:

- a. increase the Institute's capability for doing applied research relating to comprehensive planning for rural development.
- b. provide faculty and students with significant overseas experience working in LDC's.
- c. generate research findings and other information which will be useful in development efforts.

The research effort is being carried out by interdisciplinary teams of social science faculty members and graduate students. Where appropriate, the teams will be assisted by technical personnel from agriculture, animal science, veterinary medicine and other technical fields.

It is anticipated that during the grant's five-year period each of the four major subtopics will receive research attention. However, since each of the four subtopics are substantial areas for research, it is possible that the bulk of the research effort might be centered on only one or two areas.

- a. Farming Systems--This would involve the identification of appropriate agricultural and other economic activities which could easily fit within the existing socio-cultural matrix in order to improve the economic status of traditional producers. The research would involve:
 1. The identification and analysis of the existing social and agricultural systems. Such studies will provide an understanding of the socio-cultural context for development and baseline data for assessing the effects of development programs.
 2. The examination of alternative farming systems and methodologies for the transfer of appropriate practices and technology. Emphasis will be on the improvement of existing systems and the development of supplemental and alternative agricultural and related economic activities. The goal would be the development of systems that are compatible with existing socio-cultural contexts.
- b. Community Organization--Recognizing that one of the major deterrents to development efforts is the problem of gaining the cooperation and participation of traditional producers, research would focus on strategies for community organization and local participation. Among the research concerns are:
 - a. Social organization
 - b. Communication networks
 - c. Non-formal education and extension strategies

- c. Marketing--The concern is to develop alternative methodologies for improving the marketing systems of traditional producers. Research would include the following concerns:
 - a. Describing the current system of marketing by obtaining baseline data associated with current practices.
 - b. An examination of the noneconomic aspects of marketing and agricultural production among traditional producers.
 - c. An examination of possible modifications of existing marketing systems designed to improve them.

- d. New Lands Management--As a part of development efforts many LDCs have opened up "new lands" to agricultural production. This is especially true in both the dry-lands and wet-lands areas of the tropics. In the dry-lands areas reliable and year-around water supplies have been developed which have greatly altered the cropping and/or livestock patterns in the areas. In the wet-lands deforestation is making land available for agriculture. Disease control programs, such as tse-tse fly eradication efforts, are also opening up lands. Unfortunately, many of the "new lands" efforts have not been coupled with management plans that are designed to protect the ecology of the lands and future usefulness of the lands for agricultural purposes. Rather, the lands are often settled in unplanned and haphazard ways--Research will focus on the efforts of LDCs to open up "new lands" to agricultural production. Major topics of concern will be:
 - (1) Identification of problems associated with recent New Lands Projects. This will involve a review of the literature on new lands projects.
 - (2) An assessment of the "state of the art" concerning New Lands development. What guidelines and methods have been developed.

- (3) An examination of alternative models for New Lands Development. Specific concern will be with that type of social, cultural and physical infrastructure is needed and what type of land management is necessary to protect the ecology and to insure long-term use of the land.

Each academic year is spent reviewing the literature, consulting with authorities in the U.S. designing a research activity for a specific LDC and making all of the necessary contacts for field operations. On-site research in the LDCs will most likely be carried out during the summer term.

The specific research projects are selected in collaboration with host governments and USAID personnel. In general, the research will be of an applied nature and will address specific problems of LDCs.

The expected outputs for this activity are publications, project reports and graduate student theses.

The estimated faculty release time for this research activity is 15 man months per year or 75 man months for the five-year period. It is anticipated that nine (9) graduate students will be involved in the research activity.

2. Education and Training

The purpose of the education and training aspects of the grant is to:

- a. Increase Tuskegee's response capabilities in agricultural and rural development.
- b. Create interest in and train minority graduate and undergraduate students in rural development and international agriculture.

Four major sub-activities will be supported.

(a) Student Support

In order to increase the interest of minority students in international rural development and agriculture, the project supports both graduate and undergraduate students in the social sciences and other disciplines related to international development. The graduate students are employed in the research activities and will use data from these projects for their theses. Undergraduate students are employed in on-campus project activities. All will be involved in special courses, seminars and workshops dealing with international development.

The expected outputs for this sub-activity will be nine graduate students and nine undergraduate students trained in international development.

(b) Workshops and Seminars

A regular series of workshops and seminars dealing with small scale agriculture and international rural development is planned. Workshops and seminars will be designed to complement the research activity and this will focus on farming systems, community organization, marketing and new lands management.

Workshops will be of a general nature and will employ several outside expert consultants. Seminars will deal with specific problems related to research and will usually employ only a single outside consultant.

The expected output for this sub-activity will be five workshops and ten seminars. Summaries of the workshops will be

available.

(c) Curriculum Modification

In order to improve its educational offerings in international rural development, Tuskegee Institute is doing the following:

- (1) Revise appropriate existing course offerings in the social sciences.
- (2) Add new courses dealing with international development.
- (3) Increase the faculty in areas related to international development.

It is anticipated that during the first two years of the project appropriate courses in economics, agricultural economics, sociology and anthropology will be modified in order to have a more international and developmental perspective. In some cases specific segments dealing with development problems will be introduced into the course. In other cases new materials will be added to existing segments. It is anticipated that three man months of efforts during each of the first two years will be required.

Approximately three new courses dealing with development are being added to agricultural economics and four new related courses to sociology/anthropology. These course additions will necessitate the two new faculty positions, one in agricultural economics and the other in developmental anthropology. It is anticipated that the courses will have sufficient enrollment to be maintained after the expiration of the grant.

The outputs for this sub-activity will be:

- a. Three to five existing courses modified to contain sections related to international development.
- b. Three new agricultural economics and four new sociology/anthropology courses related to international development.

- c. Two new faculty positions--one agricultural economist and one developmental anthropologist.

(d) Faculty Training

In order to upgrade faculty skills the project supports faculty training related to international development work. The major activity to be supported will be intensive language training for about four faculty members. In addition, faculty will be supported to attend short courses sponsored by USAID and other organizations.

Three man months per year of such training are supported by the grant.

The outputs for this sub-activity are:

- a. Four faculty members trained in a foreign language.
- b. Faculty members trained at USAID in relevant subjects such as project design.

3. Linkages and Networks

Tuskegee Institute is increasing its linkages and networks in the area of international rural development and agriculture both domestically and internationally.

- a. Domestically, Tuskegee is increasing linkages and networks by:
 - (1) Establishing stronger ties with 1862 and 1890 colleges working in the field of international development.
 - (2) Developing ties with other minority institutions involved in international work.
 - (3) Establishing ties with non-educational institutions working in the international field.
 - (4) Participating in professional organizations concerned with international development.
 - (5) Continuing to participate in the Southeast Consortium on International Development. (SECID)

- b. Aided by USAID/Washington, Tuskegee is increasing its international linkages and networks by:
- (1) Informing USAID missions concerning Tuskegee's interest and experience in international development.
 - (2) Making contact with LDCs and providing them with information concerning Tuskegee and its faculty.
 - (3) Increasing contacts with other donor organizations such as FAO, foundations, and the World Bank.

Two man months during the first year and one man month the second year will be devoted to this activity.

4. Advisory and Consultation Services

Tuskegee is making available faculty members in economics, agricultural economics, sociology, anthropology and other areas related to agricultural and rural sector policy analysis so that they may be available to AID and LDCs for short-term advisory and consultation services in such areas as project design, analyses and evaluation.

It is expected that requests for such services will be made so as to minimize any adverse effects on the educational program at Tuskegee Institute. This will involve providing ample lead time so that faculty can adequately arrange their work schedules and where possible the scheduling of such activities to correspond with breaks in the academic calendar.

It is also expected that USAID and other organizations requesting services will provide travel, per diem and necessary logistic support for such services. Furthermore, it is

understood that grant funds will be used for such activities only when the activities clearly are in the best interest of the project.

Four months per year are devoted to this activity. The expected output from this activity is increased usage by USAID of Tuskegee personnel for short-term assignments. Also, Tuskegee will create and maintain a handbook detailing its interest and experience in international work and containing resume of faculty interested in international work.

5. Information Capacity

The purpose of this activity is to increase the information based at Tuskegee in the area of international agriculture and development. The increased information is employed in courses, research and will be used to provide information for personnel involved in advisory and consultation services. The information capacity is being increased by such activities as:

- a. Acquisition of books, journals and other library materials.
- b. Acquisition of computer models and data bases.
- c. Publication of research reports and workshops proceedings.

The outputs for this activity are:

- a. Increased library holdings.
- b. Increased capability in computer analysis and projections.
- c. Publication of research reports.
- d. Increased use of international development materials in classes.

C. Review of Critical Assumptions

The success of the 211-d grant is predicated on a number of important assumptions. The assumptions have been reviewed and remains as follows:

- (1) That USAID/TA/AGR/ESP will work closely with Tuskegee Institute in carrying out the mutually agreed upon grant objectives. This will involve:
 - a. Gaining mission and host country clearances for conducting research in LDCs.
 - b. Providing necessary introductions, etc. which will facilitate the use of Tuskegee personnel for advisory and consultative services.
 - c. Serving as a liaison between Tuskegee Institute and other parties in establishing linkages and networks on the international level.
 - d. Performing other tasks that will facilitate the carrying out of the project.
- (2) The ability of Tuskegee to employ personnel for the new positions in agricultural economics and developmental anthropology.
- (3) The ability of Tuskegee to attract graduate and undergraduate students interested in international rural development.
- (4) That AID will provide adequate opportunities for Tuskegee personnel to be involved in advisory and consultative services.
- (5) That travel, per diem and logistical support will be provided to personnel involved in advisory and consultation services.
- (6) That domestic institutions are willing to establish linkages with Tuskegee.
- (7) That AID and other agencies are willing to utilize the expertise developed at Tuskegee.

II. PROJECT ACCOMPLISHMENTS

Major progress was made toward the achievement of the 211-d objectives during the first year of the grant. Shortly after the grant was awarded it was decided that it should administratively be housed in the Tuskegee Institute/Center for Rural Development. This Center is largely funded by USDA/CSRS and is located in the School of Applied Sciences. The rationale for this decision was that the Center is multidisciplinary and would better represent the character of the grant than a single academic department.

In keeping with the intentions of the grant, an Advisory Committee for the 211-d grant was appointed. The members for the first year were as follows:

Glenn Howze, Chair
 Director, 211-d Project
 Professor of Sociology

Lewis Jones, Director
 Tuskegee Center for Rural Development

B.D. Mayberry, Dean
 School of Applied Sciences

Paul Wall, Director
 Division of Behavioral Science Research

Edward T. Braye
 Professor of Veterinary Medicine

Maurice Maloney
 Professor of Agriculture

William Vickers
 Assistant Professor of Anthropology

James Carson
 Human Resource Development Center

Thomas Simmons
 John Andrew Hospital

The membership was selected to provide broad campus representation.

Below is a detailed summary of the objectives/outputs achieved during the first year of the project.

A. Objective/Output #1--Research (Expanded Knowledge Base)

1. General literature reviews and consultation with recognized experts on selected topics.
2. Development and execution of selected research projects in selected LDCs.

The selection of a research project and a country for the research activity were no easy tasks. During the first month of the grant, Glenn Howze, the Project Director, and Edward T. Braye made a visit to AID/W to discuss possible research projects with various offices within AID. On returning to the Tuskegee Campus a report was made to the Advisory Council.

The Advisory Council was able to narrow the list of possible countries to six: Guyana, Jamaica, Yemen, Senegal, the Gambia and Mali. Once this list was prepared the project staff reviewed available documentation for AID projects in the six countries.

The next step was to identify specific activities in each of the countries that were related to the research objectives of the projects. Introductory letters from the AID/DSB Project Manager and the Tuskegee Grant Director was sent to each of the Mission Directors in the six countries outlining Tuskegee's interests and capabilities. Encouraging

responses came from Mali and Jamaica. Over the next several months site visits were made to Guyana, Jamaica, the Gambia, Senegal and Mali.

Finally, during the closing months of the fiscal year a research activity was negotiated with the USAID/Mali Mission for a Study of Extension Services in Mali.

The research activity fits under the subresearch category titled: Community Organization. The research activity was designed to supplement a new major project activity of the Mali Mission: The Agricultural Officers Training Project. The purpose of the project is to provide pre-project studies of the extension training activities that can be utilized by the project contractor USAID/Mali and GRM in the Agricultural Officers Training Project by September, 1979. The project summary and the project agreement with the Mali Mission can be found in Appendix B.

The first phase of the research was carried out during the latter part of FY78. A Tuskegee Team of three faculty members and one graduate student completed the first phase of the research project during the month of August and the first part of September. The team was composed of:

Glenn Howze, Rural Sociologist, Team Leader
John O'Sullivan, Specialist on West Africa
Suchet Louis, Specialist, Agricultural Education
Cheickna Singare, Graduate Student

Resumes for the team members can be found in Appendix A.

All the data for Phase 1 of the research project was collected. A report for Phase 1 of the project will be prepared during FY79.

USAID/Mali supplied supplemental funds for the research activity. Details for the agreement can be found in Appendix C.

A total of nine man months were devoted to the research activity during the first fiscal year, four at Tuskegee and five in Mali.

B. Objective/Output #2a--Education and Training

- a. Support for graduate and undergraduate students in academic programs related to rural development and international agriculture.

The Tuskegee 211-d grant was designed to increase interest among students at the Institute in the area of international development. Funds were set aside to support both undergraduate and graduate students who showed an interest in the field and whose academic performance warranted support. Four graduate and two undergraduate students were supported the first year of the grant.

The four graduate students came from various academic disciplines related to development. Sonia Jones, a graduate student from Jamaica was supported during her final year of a Masters degree in Education. Ms. Jones worked with Professor William Vickers, an Anthropologist, compiling a brochure concerning Tuskegee's involvement in International development. Rayill Hill, a Jamaican/ doing graduate work in animal science,

was assigned to staff members in the Human Resource Development Center at Tuskegee and worked on a proposal concerning small ruminant production in the West Indies. Iris Craig, a Guyanan student in Veterinary Medicine worked with Dr. Doris Oliviera in a production study of goats funded in part by the Ruckerfeller Foundation. Finally, Jacob Orogun a graduate student in agriculture from Nigeria worked with Dr. Author Felix in a small ruminant nutrition study with international significance.

The two undergraduate students were assigned to work with the Grant Director and performed clerical and other tasks related to the project.

Students were involved in a Seminar on International Development.

Objective/Output #2b--Workshops and Seminars

It had been the plan to center the workshops and seminars around the research activity. However, since that activity was not selected until late in the fiscal year, this was not possible. Rather, individual faculty members were supported and allowed to attend workshops and conferences related to international development. Also, the project organized a symposium which was held at the annual meeting of the Society for Applied Anthropology and published the proceedings. (See Appendix C for the title page, preface and table of contents.)

Below is a listing of the activities supported.

- a. The 211-d project organized a session at the Annual Meeting of the Society for Applied Anthropology titled: Social Science Education for Regional Development attended by William Vickers and Glenn Howze in Merida, Mexico.
- b. Willie Baber conducted a seminar on campus titled: Economy, Society and Change: Morne Paysan (Martinique) Twenty Years Later.
- c. Suchet Louis attended the International Nutrition Workshop at Massachusetts Institute of Technology.
- d. David Libby and John O'Sullivan attended the Arid Lands Conference in Denver, Colorado.
- e. William Vickers attended the Symposium on Development in the Tropics.
- f. Glenn Howze attended the Population and Food Policy Conference in Washington, D.C.

Objective/Output #2c--Curriculum Modification

Curriculum modification designed to improve Tuskegee Institute's offerings in International Rural Development.

Much progress was experienced with this objective. First of all, two existing courses in the Department of Sociology were revised to include more development content and offered during the Spring Semester. Sociology 414, Population, which was already international in scope was revised to include homework assignments comparing developed with less developed countries. The teacher, (Glenn Howze), obtained sophisticated population dynamics models from the Population Dynamics Group at the University of Illinois and revised the programs so that

they would run on the Tuskegee Computer. Students used the models in their homework assignments.

William Vickers and Glenn Howze offered Sociology 401, Seminar in Sociology, as a development seminar and used speakers from across campus and from the outside to discuss their involvement in international development.

Four new anthropology courses were approved by the Institute. They were designed by William Vickers to focus on international development and will be offered beginning the 1978-79 school term. A complete description of the courses are found in Appendix D. The courses are as follows:

Sociology 360. Applied Anthropology

Sociology 460G. Problems of National Integration

Sociology 465G. Methods of Anthropological Research

Sociology 543. Process of Sociocultural Change.

Since an Agricultural Economist was not hired by the project until the summer, there were no changes in the offerings in Agricultural Economics. Changes are anticipated during the 78-79 school year.

The Grant allowed the addition of two new faculty members with interest in International Development. After a careful search during the academic year, both an anthropologist and an agricultural economist were hired by the project.

Dr. Mohamed E. Sarhan, a production economist with a Ph.D. from the University of California at Davis, was hired to fill

the agricultural economist position. Dr. Sarhan spent the last two years working on development projects at Winrock International Livestock Research and Training Center. While Dr. Sarhan was born in Egypt, he is now a naturalized citizen of the U.S. Dr. Sarhan was appointed as an Associate Professor in the Department of Agriculture. See Appendix A for a complete resume for Dr. Sarhan.

Dr. Brooke Schoepf, a developmental anthropologist with a Ph.D. from Columbia University, was hired to fill the anthropologist position. Dr. Schoepf has had considerable professional experience in the international field. She spent the last four years as an Associate Professor of Sociology/Anthropology at the National University of Zaire in Lubumbashi, Zaire; two years as part of the Rockefeller Foundation Field Staff and two years as a Fulbright Fellow. While in Zaire, she was involved in agricultural research. She was appointed as an Associate Professor in the Department of Sociology. See Appendix for a complete resume for Dr. Schoepf.

Objective/Output #2d--Faculty Training

Recognizing the importance of foreign language in development activities, the Grant Proposal called for the training of faculty in languages. French was chosen as the target language because of its wide use in Africa. Also it was decided to support faculty training in other areas related to international development.

Below is a list of the faculty training activities for the first fiscal year.

1. During FY 1978 one faculty member, Doris Oliviera, started French Language Training at the Foreign Service Institute in Washington, D.C. Another, Glenn Howze, was approved for Training.
2. Glenn Howze, William Vickers and John O'Sullivan completed the Design and Evaluation Workshop conducted by USAID/W.
3. Doris Oliviera, attended the Agricultural Science in Africa workshop in Ibadan, Africa.

C. Objective/Output #3--Advisory and Consultative Services

- a. Create and maintain a handbook detailing Tuskegee Institute's experience and interest in international programs and providing detailed resumes of individual faculty members' interest and experience in international work.

During the first year of the grant, a twelve page brochure entitled: Tuskegee Institute and International Development. A copy of the brochure can be found in Appendix E. The brochure contains:

- A brief history of the Institute
- Descriptions of selected academic and other units
- Brief descriptions of Institute's recent involvement in international development.
- Brief resumes for selected faculty members.

The brochure was designed to provide an introduction to the Institute and its personnel for organizations involved in international work.

- b. Provide release time for faculty to respond to requests from USAID for advisory and consultative services.

The grant had allocated four man months per year for this activity. The project director spent a great deal of time trying to generate opportunities within the Agency for Tuskegee Personnel. Contact was made with the Missions in Jamaica, Guyana, the Gambia, and Senegal concerning the use of Tuskegee personnel in design and evaluation activities. Also, contact was made with AID/W personnel in all major Bureaus concerning possible short-term Tuskegee involvement. There was only minor success. One faculty member, working through SECID, did serve as a project design officer in Upper Volta for one month.

Also, a team from Tuskegee visited Jamaica to discuss a short term extension training activity. However, it did not develop. Furthermore, there were preliminary discussions about a number of possible involvements that did not work out.

This objective needs a great deal of attention during the next fiscal year. Ways must be developed to utilize qualified faculty from the Institute in Agency activities.

D. Objective/Output #4--Linkages and Networks

- a. Strengthen and develop new ties with 1890 and other minority insititutions and firms involved in international work.

During the first fiscal year, much progress was made with this objective. A faculty member in the Department of

11. Louis, S.L. Lipogenesis in fat cells isolated from dietary-obese rats fed high fat or high Carbohydrate diet. Research symposium for historically Black Land-Grant Colleges and Universities. St Louis, Missouri November 1978.

LANGUAGE PROFICIENCY

Read, speak and write very well

1. French
2. Spanish
3. English

MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

1. Sigma Xi, USA
2. American Dairy Science Association, USA
3. Latin American Association of Animal Production, Latin America
4. American Society of Animal Science, USA
5. American Institute of Biological Science, USA
6. Organization of Black Scientists, USA
7. National Council on Obesity, USA
8. American Public Health Association, USA
9. Kappa Omicron Phi, National Home Economics Honor Society, USA
10. American Association for the Advancement of Science, USA

AWARD

Outstanding Teacher Award for 1978 at Tuskegee Institute

RESUME

Claude H. McGowan
 622 Hayjac Drive
 P. O. Box 553
 Tuskegee Institute, AL 36088 Tel. No. (205) 727-4461

PERSONAL: Married: 5'73/4" tall, 160 lbs.
 Permanent resident of U. S. A.

PROFESSIONAL OBJECTIVE: Agricultural Extension
 Agricultural Management
 Feed Companies and Sales
 Teaching Animal Science

EDUCATION: General Certificate of Education, 1958, Queens
 College, Guyana, South American.

Diploma in Agriculture; 1962, Eastern Caribbean
 Farm Institute, Centeno, Trinidad.
 Major: General Agricultural
 Special emphasis on Crop and Livestock Production

B. S.; 1969, Tuskegee Institute, Tuskegee Institute,
 Alabama.
 Major: Animal Science
 Special Emphasis on Nutrition, Reproduction and
 general Management of livestock.

M. S.; 1971, University of Florida, Gainesville,
 Florida.
 Major: Animal Science
 Special emphasis on nutrition of Ruminant Animals.

EXPERIENCE:

1972 to present: Alabama Cooperative Extension Service,
 Tuskegee Institute, Tuskegee Institute, Alabama.
Extension Animal Husbandman - Responsible
 for Educational programs related to beef
 cattle and swine nutrition, selection and
 management.

- 6/69 to 8/69: Tuskegee Institute, Tuskegee Institute, AL.
Assistant Herdsman: Feeding and managing
beef and dairy herds.
- 6/68 to 8/68: Down State Medical Center, New York
Animal Caretaker: Feeding and caring for
animals used in research work.
- 6/67 to 8/67 Tuskegee Institute, Tuskegee Institute, AL.
Library Assistant: Cataloging of books
- 6/62 to 8/66: Department of Agriculture, Guyana, South
America
Agriculture Field Assistant: Teaching
farmers new techniques and skills in
agriculture with special emphasis on
livestock and crop production, and community
development.
- 9/58 to 6/60: Ministry of Education, Guyana, South America
School Teacher:
- Summer Work: Earned 60 percent of total college expenses
as an undergraduate student.

ADDITIONAL EXPERIENCE:

- September 16 - October 12, 1975: Member of Feasibility Team
(Animal Husbandry) for OICI/AID
in Togo and Gambia, West Africa.
- November 7 - December 1, 1977: Member of Feasibility Team
(Livestock) for MASI/USAID in
CHAD, Africa.
Report to Lake CHAD Commission
Basin - "A Conceptual Model for
the Demonstration of Sound
Livestock Production Practices."

PROFESSIONAL AND SOCIAL SOCIETIES: Phi Beta Sigma Fraternity, Inc.
Member of the Southern Association of Agricultural Scientists. Society of Animal Science

PUBLICATIONS: Fick, K.R., C.B. Ammerman, C.H. McGowan,
P.E. Loggins and J.A. Cornell: Influence
of Supplemental Energy and Biuret Nitrogen
on the Utilization of Low Quality Roughage
by Sheep. Journal of Animal Science, Vol. 36,
No. 1, 1973.

McGowan, C. H., Selection of Breeding Cattle,
Alabama Cooperative Extension Service, Circular
TI-AS-2.

PUBLICATIONS (con't)

McGowan, C. H. Producing Feeder Pigs, Alabama Cooperative Extension Service. Circular TI-AS-6.

McGowan, C. H. Cow-Calf Management Tips, Alabama Cooperative Extension Service, Circular TI-AS-1.

McGowan, C. H., Reproduction of Beef Cattle, Alabama Cooperative Extension Service, Tuskegee Institute, Circular TI-AS-4.

McGowan, C. H., Nutrition in Beef Cattle, Alabama Cooperative Extension Service, Tuskegee Institute, Circular TI-AS-8.

McGowan, C. H., Pastures for Sows, Alabama Cooperative Extension Service, Tuskegee Institute, Circular TI-AS-9.

McGowan, C. H. Pasture Establishment and Management, Alabama Cooperative Extension Service, Tuskegee Institute, Circular TI-AS-10.

FAMILY BACKGROUND: Brought up in Guyana, South America. Spent 50 percent of life in city and 50 percent in the country areas. I attended high school there. My father is a retired school principal and my mother is a deputy school principal.

I have one brother and four sisters.

My wife is a procurement-Specialist with the business development Center at Tuskegee Institute.

I have traveled extensively throughout Southeastern U.S.A.

INTEREST: I am primarily interested in outdoor activities and working along with people.

CURRICULUM VITAE

DORIS MITCHELL OLIVEIRA, D.V.M.

Born: [REDACTED]

Marital
Status: MarriedPresent
Address: Department of Agricultural
Sciences
Tuskegee Institute
Tuskegee Institute, AL
36088EDUCATIONBoston University
Boston, MASS
A.B. - 1956Tuskegee Institute
Tuskegee Institute, AL
D.V.M. - 1961CURRENT POSITIONS

October 1978-Present	Director, Title XII Small Ruminant Program - International Program Tuskegee Institute, AL
1976-1978	Research Associate School of Applied Sciences Tuskegee Institute, AL
1975-1976	Research Associate Swine Disease Research School of Veterinary Medicine Tuskegee Institute, AL
1970-1973	Director, Institute of Comparative Study Harlem Hospital Center New York, New York
1969-1973	Associate in Pathology College of Physicians and Surgeons Columbia University
1968-1973	Director, Childrens Council for Bio-Medical Careers Program Columbia University College of Physicians and Surgeons

DORIS MITCHELL OLIVEIRA

PREVIOUS PROFESSIONAL POSITIONS

1967-1969	Instructor Department of Pathology College of Physicians and Surgeons Columbia University
1966-1967	Treatment Room Veterinarian A.S.P.C.A. Hospital 92 York Avenue New York, New York
1964-1965	Research Associate Department of Surgery Veteran's Administration Hospital Tuskegee, Alabama
1963-1964	Veterinary Poultry Inspection Trainee U.S. Department of Agriculture Philadelphia, Pennsylvania
1962-1963	Research Associate Department of Neuropathology Ohio State University Columbus, Ohio
1961-1962	Instructor Department of Animal Pathology and Virology Research Diagnostic Laboratory Work University of Rhode Island Kingston, Rhode Island
1956-1957	Bio Chemical Research Technician Argonne Cancer Research Hospital University of Chicago Chicago, Illinois

PROFESSIONAL AFFILIATIONS

American Association of Equine
Practitioners

American Veterinary Medical Assoc.
Women's Veterinary Medical Assoc.

International Association of Elec-
tronic and Electrical Engineering

Association of Sheep and Goat
Practitioners

Association for the Advancement of
Agriculture Sciences in Africa

International Veterinary Acupuncture
Society

DORIS MITCHELL OLIVEIRA

PROFESSIONAL AFFILIATIONS (Continued)

New York Association of Comparative
Pathology

New York Association of Laboratory
Animal Veterinarians

United Nations Association

Associate at Bank Street in Harlem

OTHER AFFILIATIONS

President
Joseph Mitchell Memorial Foundation
(Educational and Cultural Organiza-
tion)

PERSONAL DATA RESUME

October 1978

NAME: John Michael O'Sullivan

ADDRESS:

E F I:

HEIGHT: 5'9"

WEIGHT: 150 lbs.

EMPLOYMENT EXPERIENCE:

- July 1978 - Present Participant in 211-(d) international development project
Tuskegee Institute
- August 1978 Participant in Agricultural extension officer College Project
(CAA) (USAID- Tuskegee Institute). Survey of agricultural
extension officers, Mali, West Africa
- June 1978 Participant in USAID Program design and evaluation seminar,
Washington, D.C.
- August 1977- Present Assistant Professor of History, Tuskegee Institute
- January 1977- August 1977 International Commercial Banking Management Trainee,
Bankers Trust Co, New York
- September 1975- June 1976 Lecturer of African, Afro-American and American History
at California Polytechnic State University, San Luis
Obispo, California
- September 1974- August 1975 Research for Ph.D. thesis in Ivory Coast, Sénégal, Mali
and France with a Fulbright-Hays Grant
- September 1968- June 1970 Peace Corps Volunteer, Ivory Coast, West Africa. Teacher
of housing construction in technical centers in Gagnoa
and Katiola. Teacher of English as a second language in
secondary school, Katiola, Ivory Coast

EDUCATIONAL TRAINING:

1972-1976	University of California, Los Angeles	Ph.D.	History
1970-1972	University of California, Los Angeles	M.A.	African Studies
1965-1968	Stanford University, Stanford, Calif.	B.A.	History
1964-1965	St. John's Seminary, Boston, Mass.		Philosophy
1962-1964	St. Thomas Seminary, Bloomfield, Ct.	A.A.	Classics

Personal Data Resume

John H. O'Sullivan

Page 2

TITLE OF DOCTORAL DISSERTATION:

"Developments in the social stratification of northwest Ivory Coast during the 18th and 19th centuries: from a Malinké frontier society to the liberation of slaves by the French- 1908"

DIRECTOR OF DISSERTATION RESEARCH:

Boniface Obichere

PROFESSIONAL AFFILIATIONS:

African Studies Association
 American Historical Association
 Association for the Study of Arid and Semi- Lands

HONORS RECEIVED:

1974-1975 Fulbright-Hays Fellowship for dissertation research
 1973-1974 Patent Fund for dissertation research (UCLA)
 1971-1974 NDEA Title VI grant for the study of Bambara, a language of West Africa

TRAVEL ABROAD:

Extensive in Europe, Africa and America

LANGUAGE COMPETENCIES:

French and Bambara

ARTICLES PUBLISHED:

"The Franco-Baoulé War" forthcoming in International Journal of African Studies.
 "The UPC-A Study of Mass Mobilization in Cameroon 1945-1970" in Ufahamu, Spring 1973.
 Review of Gordon Haliburton's The Prophet Harris in African Religions, April, 1972.

BIO-DATA

Name: Mohamed E. Sarhan

Address: School of Applied Sciences, Willcox Hall "B"
Tuskegee Institute
Tuskegee Institute, Alabama 36088

Phone: Office - 205/727-8219 [REDACTED]

Personal Data: [REDACTED]

Marital Status - Married, two children
Naturalized Citizen of the United States

Academic Education: B.S. - Agronomy, University of Alexandria, Egypt. 1968
M.S. - Agricultural Economics, University of
California, Davis, California. 1973
M.A. - Economics, University of California
Davis, California. 1974
Ph.D. - Agricultural Economics, University of
California, Davis, California. 1976.

Fields of Special Interest:

Farm Management
Production Economics
Quantitative Methods
Economic Development
Livestock Systems Analysis
International Economics

Additional Expertise:

Experience with computer terminals and JCL
Write FORTRAN IV computer language
Very good knowledge of linear programming computer
packages.

Membership in Professional and Honor Societies:

American Agricultural Economics Association
American Economics Association
Omicron Delta Epsilon, Honor Society in Economics

Current Position:

July 1978 - Present. Associate Professor of Agricultural Economics, Tuskegee Institute. Responsibilities include teaching, research and extension in Agricultural Economics and Rural Development.

Previous Research and Field Work:

1976-1978 Agricultural Research Economist, Winrock International Livestock Research and Training Center (WILRTC). Morrilton, Arkansas 72110.

1. Was involved, with the cooperation of other institutions, in developing a long-term research and implementation development project concerned with the viability of small family farms in Western Arkansas and Eastern Oklahoma. Responsibilities included organizing and coordinating a workshop.

2. Member of a Winrock team in a research project to determine the optimal utilization of Southern forest-range land.

3. Project leader and principal investigator for a research study of the economic feasibility of livestock activities in the Navajo Indian Irrigation Project area of New Mexico. Duties included full responsibility for development of the analytical framework, collection of data, the economic analysis, and writing the final reports.

4. Principal investigator for a research project of an integrated beef cattle program on the Cheyenne River Sioux Reservation of South Dakota.

5. Participated in a major Winrock research project entitled "The Role of Ruminants in Support of Man". Final report was published in April, 1978.

1974-1976 Post-graduate Research Agricultural Economist, Dept. of Agricultural Economics, University of California, Davis, California. Duties involved conducting the empirical investigation for Ph.D. dissertation.

1972-1974 Research Assistant, Department of Agricultural Economics, University of California, Davis, California. Duties involved work with Dr. T. R. Hedges on the development of a project concerned with the economic and social impacts of pesticide use and regulations in California.

1971-1972 Work-study/Research Assistant, Department of Agricultural Economics, University of California, Davis, California. Duties included collecting, organizing and analyzing agricultural research data.

Previous Research and Field Work continued:

- 1969 Research Assistant, P-A-G Division, W. R. Grace and Co., Spencer Research Station, Spencer, Iowa. Duties involved participation in the station's corn breeding program, and were divided into field and laboratory work.
- 1965-1967 Research Assistant, Department of Agronomy and Plant Protection, University of Alexandria, Egypt. Duties included participation in the agricultural education and development programs throughout the Nile Delta and the eastern desert's reclamation and irrigation projects.

Publications:

1. An Economic Analysis of Optimal Mosquito Abatement Strategy and Investment Policy in R&D and Registration of Narrow-Spectrum Chemical Pesticides for Mosquito Control in California. Field Research Essay for Ph.D. degree. 1974.
2. An Economic Analysis of Mosquito Abatement in California and the Chemical Industry's Investment in Narrow-Spectrum Pesticides. Ph.D. dissertation, University of California, Davis, California. 1976.
3. Economic Analysis of Livestock Production, Processing and Marketing Systems for the Navajo Indian Irrigation Project. Part I: Marketing Feasibility. A WILRTC Report. 1976.
4. Economic Analysis of Livestock Production, Processing and Marketing Systems for the Navajo Indian Irrigation Project. Part II: Production and Financial Analysis. A WILRTC Report. 1977.
5. Feasibility of Integrated beef cattle activities on the Cheyenne River Sioux Reservation in South Dakota. A WILRTC Report. 1977.
6. Objectives and Constraints of Ruminant Livestock Production. (with O. J. Scoville). World Review of Animal Production. Volume XIV, Number 1. January-March, 1978.

Submitted for Publication:

1. An Economic Analysis of Mosquito Control. Submitted to the Journal of Environmental Economics and Management.
2. Economic Evaluation of Mosquito Control and Narrow-Spectrum Mosquitocide Development in California. A bulletin to be published by the University of California Agricultural Experiment Station.

In Preparation:

1. Economic and Biological Aspects of Chemical Pesticide Control of Mosquitoes in California.
2. Linear Programming Model for the Navajo Agricultural Products Industries' Livestock feeding and slaughtering in New Mexico: A User's Guide.

References:

1. Dr. George E. Cooper, Dean
School of Applied Sciences
Tuskegee Institute
Tuskegee Institute, Alabama 36088
2. Mr. Yahya Al-Habshi
Deputy Director of Agricultural Affairs and
Director of the Department of Horticulture
Ministry of Agriculture
The Yemen Arab Republic, Sana'a
3. Dr. Richard E. Howitt
Department of Agricultural Economics
University of California
Davis, California 95616
4. Dr. Warren E. Johnston
Department of Agricultural Economics
University of California
Davis, California 95616
5. Dr. Charles V. Moore
Department of Agricultural Economics
University of California
Davis, California 95616
6. Dr. R. O. Wheeler, President
Winrock International Livestock Research and
Training Center
Morrlilton, Arkansas 72110

References continued:

7. Dr. H. A. Fitzhugh
Director of Research
Winrock International Livestock Research and
Training Center
Morrilton, Arkansas 72110

Special Qualifications:

Dr. M. E. Sarhan was born in Egypt and received his B. S. in Agronomy from the University of Alexandria. He changed his field of interest to Economics and Agricultural Economics after immigrating to the United States. This academic background in both biological and social sciences enhances his understanding of agricultural production systems. Also it allows him to establish successful working relationship with biological scientists.

Dr. Sarhan is familiar, through work experience and his special background, with many economic development issues particularly in the Middle East.

He has extensive training in working with agricultural development projects. He speaks, writes and understands Arabic. M. E. Sarhan became a naturalized citizen of the United States in 1975.

CURRICULUM VITAE

Brooke Grundfest Schoepf, Ph.D.

- Present position: Associate Professor
Sociology Department and Center for International
Rural Development
Tuskegee Institute,
Alabama 36088
- Born: [REDACTED], [REDACTED], Pa. - Married; 2 children
- Education: Bronx High School of Science, Bronx N.Y. 1946-1949
Brooklyn College, Brooklyn, N.Y. 1949-1953
B.A. 1953
Columbia University, N.Y. 1954-1955
1963-1964
Ph.D. 1969
London School of Economics, London, England 1956
- Experience: 1974-1978 Associate Professor of Sociology-Anthropology
National University of Zaire, Lubumbashi
(Rockerfeller Foundation Field Staff 1974-76;
Fulbright Professor 1976-1978)
- 1976-1978 Overseas Associate
Fernand Braudel Center for the Study of
Economics, Historical Systems, and Civilizations -
State University of New York at Binghamton
- 1972-1974 Assistant Professor, Department of Community
Medicine; Department of Anthropology,
University of Connecticut
Program Coordinator, Doctoral Program in
Social Science and Health Services, University
of Connecticut health Center, Farmington
- 1970-1972 Senior Research Scientist, New York State
Department of Mental Hygiene,
New York University, New York
- 1969-1970 Assistant Professor, Research, Department of
Preventive Medicine, Tufts University School
of Medicine, Boston, Mass.
- 1966-1968 Research Associate, New York University
School of Medicine, New York City
- Spring 1966 Lecturer, Department of Anthropology
Brooklyn College, C.U.N.Y., Brooklyn, N.Y.

- 1962-1963 Fellow, Social Research laboratory,
City College, C.U.N.Y.
- 1957-1958 Field Research, Var. France (rural
community study) Bollingen Foundation Fellow.
- Spring 1956 Research Assistant, Department of Sociology,
University of Exeter, Devonshire, England
(rural community study)

Publications:

Translation (with Claire Jacobson) of Claude Lévi-Strauss,
Structural Anthropology, N.Y., Basic Books, 1963.

"Ethics and the Politics of Anthropology," invited
commentary, Human Organization—33.1 (Spring 1970),
pp. 105-107.

"Human Relations versus Social Relations in Medical Care,"
in Topias and Utopias in Health: Policy Studies, Stanley
R. Ingman and Anthony E. Thomas (eds.). Netherlands, The
Hague: Mouton, 1975. pp. 99-120.

"Sex Differences, Genuine and Spurious," in Reviews in
Anthropology—I:1, 1974. pp. 102-109.

"The Politics of Theory: Participant-Observation in
Women's Liberation," (with Amelia M. Mariotti) in Cross-
Cultural perspectives on the Women's Movement, Ruby
Leavitt (ed.). Netherlands, The Hague: Mouton, 1975.
pp. 389-419.

"Recherches en Anthropologie Medicale: Theorie et
Perspectives Methodologiques," in Bulletin d'Anthropologie
Medicale, I:2 (Aout 1976). pp. 20-36.

"Breaking Through the Looking-Glass: the View from Below,"
in The Politics of Anthropology, Gerritt Huizer (ed.).
Netherlands, The Hague: Mouton (in press).

"Ecologie, Ideologie et Developpement Agricole Pendant
la Periode Coloniale," forthcoming in Les Cahiers Zairois.

In Preparation:

"Rural Development in Zaire: Conceptual Models and
Historical Background," to be published in a collection
edited by G. Huizer at Van Gorcum, Netherlands.

"Miracle Maize in Zaire: Impact on Small Farm Development

"Ecologie et Systemes Agraires: Concepts pour le
Developpement Rural."

Manuel de Sociologie Rurale, Lubumbashi, CEPAC.

Zaire's Development: Case Studies and Contemporary Theory.

Unpublished
Papers:

"Integrating Health Care Delivery: The Interface Between Western and Non-western Medical Systems.

"Medical Neglect," invited paper presented at the Symposium "Going Hungry: Hunger and Other Social Problems," 68th Annual Meeting of the American Anthropological Association, New Orleans, Louisiana, November, 1969.

"Structured Conflict in Neighborhood Health Centers," invited paper presented to the Governing Board of the Medical Committee for Human Rights, New Orleans, January, 1970.

"Neighborhood Health Centers: Polarization of Issues," with Richard M. Hessler, Phyllis Y. Bagwell, Seymour S. Bellin and Peter K.M. New - paper presented at the Symposium "Perspectives on the Delivery of Health Care by Providers and Consumers: Some Relevant Issues," at the Society for Applied Anthropology Meetings, Boulder, Colorado, April 1970.

"Cultural Implications of Biological Sex Differences: A Reexamination of the Evidence," paper presented at the Symposium "Anthropologists Look at the Study of Women," 70th Annual Meeting of the American Anthropological Association, New York, November, 1971.

"Female Subordination: Harbinger, Epiphenomenon or What?" presented at the 72nd Annual Meeting of the American Anthropological Association. New Orleans.

"Zaire's Rural Development: History, Problems and Prospects; Continuity and Discontinuity in Perspectives," paper presented at session "Peasants and Bureaucracy," joint Meeting of the US and Netherlands Societies for Applied Anthropology, Amsterdam, April, 1975.

"Developpement Rural et Systeme Social: Critique Methodologique," paper presented at the First Annual Meeting of the Association des Sociologues et Anthropologues du Zaire, Lubumbashi, April, 1975.

"Underdevelopment in Zaire: Structure and Conjoncture," Institute for Development Studies, University of Nairobi, September, 1977.

Reports:

"Facial Disfigurement Culture and Reconstructive Surgery," research report, Department of Plastic Surgery, New York University School of Medicine, November, 1967.

"The Hospital and Social Unrest," report to the Trustees of University Hospital, New York, June, 1968.

"The Psycho-Social Consequences of Plastic Surgical Treatment of Facial Disfigurement", study prepared for the Social Resources Administration, Department of H.E.W., November, 1968.

"The Charlotte Hungerford Hospital: the Community's Image of and knowledge about its Services, Operation and Administration," with John Glasgow and Thomas Hagymasi, study prepared for the Community Relations Committee of Charlotte Hungerford Hospital, Torrington, Conn., Spetember, 1973.

Professional Societies:

Fellow, American Anthropological Association

Fellow, Society for Applied Anthropology

Society for Medical Anthropology

Association des Sociologues et Anthropologues du Zaire

AAA Activities:

Symposium Convenor and Chairperson:
70th Annual Meeting, New York, 1971.

71st Annual Meeting, Toronto, 1972.

72nd Annual Meeting, New Orleans, 1973.

74th Annual Meeting, San Francisco, 1975.

Course

Development:

Community Ecology: Contemporary Social Issues
Graduate Seminar, 1970 with NYU Community Psychology
Program Staff.

Intergroup Relations in Cross-Cultural Perspective
Graduate Seminar, NYU, 1971.

Health and Social Change: OEO Program Undergraduate
Seminar, Lehman College, C.U.N.Y., 1971.

Psychology of Women, Graduate Seminar, NYU; 1972.

Devils, Drugs and Doctors, Medical Anthropology for Medical and Dental Students, U. Conn. Health Center, 1973.

Women in Evolutionary perspective, 2 year sequence, U. Conn., Farmington, Graduate Program in Anthropology, 1974-76.

Rural Sociology Undergraduate cycle: Economie et Sociologie des Societes Paysannes; Ecologie et Systemes Agraires; Anthropologie Economique. UNAZA, 1974-1978. Theorie et Methodes de Recherche en Sociologie Rurale.

Graduate Sequence: Developpement Economique - Une perspective Sociologique- two seminars.

Research
Grants &
Contracts:

- 1973-74 The Evolution of Female Subordination
CREF - \$1,000
- 1973 Charlotte Hungerford Hospital Community
Survey (with Dr. John Glasgow) - \$6,000
- 1973-74 Health Services and Social Science Research
Doctoral Training Program - HEW - \$96,7000
- 1976-78 Evaluation of Maize Growing Program in Shaba
Rockerfeller Foundation - \$17,000

Consultant
Work:

- 1969 Management Consultant, Computer Intelligence
Corporation, New York, N.Y.
- 1970-71 Organization Development Consultant, Leader-
ship Training and Human Relations, Todt Hill
Civic Association
- 1973-74 Organization Development Consultant, Mount Sinai
Hospital, Hartford, Connecticut

1. Miracle Maize

A longitudinal evaluation of a small-farmer agricultural development program focusing on local response to national policy and regional implementation. The village setting is used as a field training laboratory. Interviews with policy-makers and administrators reveal the effects of national and regional level decision-making on local events. (In collaboration with Claude Schoepf).

2. Class Formation in a Developing Nation

Developing class consciousness among the managerial elite of the nation's second largest city is studied, using participant observation and interviews with persons in both private and parastatal firms. Key informants are asked to complete economic data available from public sources to help determine the nature and extent of local business networks, and their activities.

3. Integrating Health Care Delivery

The interface between western and non-western systems of medical care in rural and urban settings; implications for the training of health practitioners. Using participant-observation of various treatment centers in the city of Lubumbashi and a nearby rural area, interviews with practitioners and patients plus, where possible, review of records and statistics, an assessment is made of utilization of the various health facilities. Some of the conflicts between the different treatment modalities are considered and suggestions offered for increasing the range and effectiveness of health care delivery.

4. Women Chiefs in Central Africa

Interviews with elderly informants as well as scattered historical references include mention of exceptional women socially recognized as decision-makers and judges in many ethnic groups in which the status of women is usually noted to have been subordinate to that of men. Informant interviews are used in relation to published ethnographies of the respective ethnic groups (Luba-Shankedi, Lemba, Topoke, Pende, Tutsi, Songye and Kongo) to illuminate the significance of these female roles in both matrilineal and patrilineal societies. In addition, women who are today recognized as chiefs are interviewed.

5. Women in Informal Employment in Lubumbashi: the case of the Ndumba.

The profession of ndumba or ferme libre is one of the major economic activities open to women in Lubumbashi and constitutes an important segment of the informal sector. While the ndumba has been variously condemned as a prostitute and extolled as the liberated woman of Zaire, little objective research has actually been carried out. This study, based on interviews and observations over a period of four years, attempts to situate the ndumba economically, socially and politically in the context of development and dependancy.

CURRICULUM VITAE

Cheickna Mohamed Singare

Address:

[REDACTED]

Born:

[REDACTED]

Present

Occupation:

211-D Language Instructor (French and Bambara)
211-D Translator/Interpreter

Education:

Present Graduate student at Tuskegee Institute.
Major: Language Arts Minor: Banking
and Finance.

1968-72 Ecole Normale Superieure, Bamako, Mali.
Major: English

1961-68 Lycee Askia Mohamed, Bamako, Mali.

1960-61 College Technique, Bamako, Mali.

1954-60 Primary School at Ecole Daniel Brottier,
Thies, Senegal.

Experience:

Summer
1978 Participated in the 211-D Survey of
Malian Agricultural Moniteurs.

1972-78 Interpreter/Translator for USIS and
USAID in Mali.

1972-78 TESOL Teacher, Lycee Bouillagui Fadiga,
Bamako, Mali.

1973-78 Peace Corps/Mali, Language Instructor/
Coordinator.

1974-75 Research Assistant for Dr. Karen Courtenay
(UCLA) on a Bambara/English Dictionary;
Patrick McNaughton (Yale) on Ph. D. dis-
sertation; John W. Johnson (Indiana Uni-
versity) on a Ph.D. dissertation; and
Dr. Charles Bird (Indiana University).

1970 Tour Director for French Youth Group.

1969-70 Tourist Guide for Mali Tourist Office.

Workshops &
Seminars:

1977 Peace Corps/Senegal workshop to train
new language instructors in Dakar.

1977 TEFL Workshop organized by Peace Corps
in Bamako, Mali.

- 1976 Directed and coordinated Language Workshop for Malian instructors in Bamako; and Peace Corps TEFL Language Training Program.
- 1976 Participated in TEFL Seminar under auspices of Malian Ministry of Education.
- 1975 Participated in the San Francisco State University Summer Institute on American Culture and Language as the leader of the African subgroup.
- 1974 Member of committee in charge of reviewing the TEFL curriculum for Malian lycees.

Languages: Fluently speak: French, English, Bambara and Valaf.
 Writing ability: French, English (very good)
 Studied: Latin, Greek, and German.

Other Information: Hobbies include photography, yoga, and karate.
 Travel experience includes Senegal, Mali and the United States.

References: Dr. John W. Johnson
 University of Michigan
 Dept. of Linguistics and Oriental and African Languages
 East Lansing, Michigan.

Mr. Bob Taylor
 Chad/ Desk Office
 Peace Corps
 Connecticut Avenue
 Washington, D.C.

Dr. Charles Bird
 Indiana University
 Lindley Hall
 Bloomington, Indiana

Fall, 1977

CURRICULUM VITAE

NAME: William T. Vickers

TITLE: Ass't. Professor of Anthropology, Dept. of Sociology

DEGREES: B.A., Psychology, Jacksonville University (1967)
Ph.D., Anthropology, University of Florida (1977)

LANGUAGES
SPOKEN: English, Spanish, Portuguese

FOREIGN
COUNTRIES
VISITED:

1964	Mexico	Observe UN program in community development.
1964-65	Ecuador	Peace Corps volunteer in rural community development.
1971	Mexico	National Science Foundation field school in ethnological research methods; studied Otomi Indian economic patterns.
1972	Ecuador	Conducted ethnographic survey of indigenous groups residing in Ecuador's Amazonian lowlands.
1973-75	Ecuador	Conducted doctoral dissertation research among the Siona-Secoya Indians of eastern Ecuador; focus was on ecological and economic adaptation and culture contact and change.
1974	Brazil, Bolivia, Peru, Colombia	Travel and vacation.

RESEARCH
PAPERS:

1976	Cultural Adaptation to Amazonian Habitats: The Siona-Secoya of Eastern Ecuador. Ph.D. dissertation, Department of Anthropology, University of Florida.
------	--

PUBLICATIONS:

1978a	CA Comment on Food Taboos, Diet, and Hunting Strategy: The Adaptation to Animals in Amazon Cultural Ecology. Eric Barry Ross. Current Anthropology 19(1). (To be published in March 1978)
1978b	Social Science Education for Development: Chimera or Fait Accompli? In Social Science Education for Regional Development. (To be published in 1978 by Tuskegee Institute)

- 1977 Review of the Shaman and the Jaguar:
A Study of Narcotic Drugs Among the Indians
of Colombia. G. Reichel Dolmatoff.
Hispanic American Historical Review 57(2):
370-371.
- 1975a Meat is Meat: The Siona-Secoya and the
Hunting Prowess-Sexual Reward Hypothesis.
Latinamericanist 11(1): 1-5. Center for
Latin American Studies, University of
Florida.
- 1975b El Mundo Espiritual de los Sionas. Periplo
1(4): 12-23. Instituto de la Caza
Fotografica y Ciencias de la Naturaleza
(Madrid).
- 1973 Environment, Production, and Subsistence:
Economic Patterns in a Rural Otomi Commu-
nity. In Ethnological Field Training in
the Mezquital Valley, Mexico. Michael
Kenny and H. Russell Bernard, eds. pp.
143-162. Washington, D.C. : The Catholic
University of America.
- 1972 Indians, Oil, and Colonists: Contrasting
Systems of Man-Land Relations in the
Aguarico River Valley of Eastern Ecuador.
Latinamericanist 8(2): 1-3. Center for
Latin American Studies, University of
Florida.

MANUSCRIPTS:

Native Amazonian Subsistence in Diverse
Habitats: The Siona-Secoya of Ecuador.
Under editorial consideration for the
Journal of Anthropological Research.

MS on Siona-Secoya ethnicity and culture
change being prepared for Cultural Trans-
formations and Ethnicity in Modern Ecuador.

The Tribal Hallucinogens of Lowland
Ecuador: External Policy Versus Native
Structure. Under editorial consideration
for Human Organization.

MS on the hunting patterns of the Siona-
Secoya and the faunal resources of their
habitat under preparation.

FIXED PRICE TECHNICAL SERVICES CONTRACT

AGENCY FOR INTERNATIONAL DEVELOPMENT

CONTRACT NO. BKO-688-78-033

NEGOTIATED PURSUANT TO THE FOREIGN ASSISTANCE

FIXED PRICE \$30,000

ACT OF 1961, AS AMENDED, AND EXECUTIVE ORDER 11223

CONTRACT FOR:

Study of Extension Services in Mali

Project No. 688-0207

CONTRACTING OFFICE (Name and Address) USAID, c/o American Embassy, Bamako, Mali.	CONTRACTOR (Name and Address) Tuskegee Institute
	NAME International Programs
	STREET ADDRESS Tuskegee, Alabama 36088
	CITY, STATE AND ZIP CODE
TECHNICAL OFFICE Agriculture Division, USAID/Bamako.	EFFECTIVE DATE: August 15, 1978. COMPLETION DATE: August 31, 1979.
MAIL VOUCHERS (Original and 3 copies) TO: Controller, USAID, c/o American Embassy, Bamako, Mali.	ACCOUNTING AND APPROPRIATION DATA Amount Obligated: \$10,000 XXXXXX Oblig. No. 6888264 APPROPRIATION NO. 72-1181000 10 ALLOTMENT NO. 800-52-688-00-52-81

TYPES OF BUSINESS (CHECK APPROPRIATE BOX(ES))

<input type="checkbox"/> SOLE PROPRIETORSHIP	<input type="checkbox"/> SMALL BUSINESS
<input type="checkbox"/> PARTNERSHIP	<input type="checkbox"/> LABOR SURPLUS AREA
<input type="checkbox"/> JOINT VENTURE	<input checked="" type="checkbox"/> UNIVERSITY
<input type="checkbox"/> CORPORATION INCORPORATED IN THE STATE OF	

The United States of America, hereinafter called the Government, represented by the Contracting Officer executing this contract, and the Contractor agree that the Contractor shall perform all the services set forth in the attached Schedule, for the consideration stated therein. The rights and obligations of the parties to this contract shall be subject to and governed by the Schedule and the General Provisions. To the extent of any inconsistency between the Schedule or the General Provisions and any specifications or other provisions which are made a part of this contract, by reference or otherwise, the Schedule and the General Provisions shall control. To the extent of any inconsistency between the Schedule and the General Provisions, the Schedule shall control.

This Contract consists of this Cover Page, the Schedule of 5 Pages, including the Table of Contents and the General Provisions (form AID 1420-42C, dated July 1, 1975).

NAME OF CONTRACTOR Tuskegee Institute	UNITED STATES OF AMERICA AGENCY FOR INTERNATIONAL DEVELOPMENT
BY (Signature of authorized individual) Dr. Glenn Howze <i>G. Howze</i>	BY (Signature of Contracting Officer) <i>Ronald D. Levin</i>
TYPED OR PRINTED NAME Dr. Glenn Howze	TYPED OR PRINTED NAME Ronald D. Levin
TITLE Team Leader	CONTRACTING OFFICER Mission Director
DATE August 15, 1978	DATE August 15, 1978.

SCHEDULE

ARTICLE I - STATEMENT OF WORK

A. Objectives:

To study and provide reports thereon relating to improving the curriculum of the agricultural officer's training schools in Mali.

The contractor shall provide 15 person-months of professional services to perform the studies specified below:

(1) a study which provides a profile of Malian extension agents (including educational characteristics, job descriptions, socio-economic backgrounds);

(2) a study of present extension activities, observed over time, including the proportion of time allocated to various activities, producer contacts, etc;

(3) a study of the extension services as perceived by the small farmer;

(4) a study which presents a review of the current agricultural officer's training program;

(5) a study highlighting and suggesting elements to be incorporated in the re-design of the 3rd year in-service practicum for the agricultural officer's training school including recommendations for re-training of present extension workers.

It is anticipated that the information gathering activities in Mali of the contractor will be conducted in 3 phases, with a final report thereon to be submitted during the third phase. The first phase of work will involve (1) and (2) above, The second will involve (3), and the third phase (4) and (5).

ARTICLE II - STAFFING

The precise mix of professional services and level of effort necessary to successfully complete the terms of this contract shall be the responsibility of the contractor, but no less than 15 person-months in Mali of professional services shall be provided by the contractor during the 3 phases. Their salaries are not to be paid by the Contracting Office.

ARTICLE III - REPORTS

A. Progress Report:

Within ten days after the successful conclusion of each of the first two phases of work and studies required hereunder, the contractor shall submit a report of its activities and the results of the studies conducted. The reports shall be detailed and shall fully cover the study areas described under Article I B above.

B. Final Report:

The contractor shall submit no later than August 31, 1979, a final report which covers the final phase of activities and the results of project evaluations performed during the entire period of this contract, with brief appendix outlining extent contractor used minorities/women.

C. Report Submission:

Copies of the reports mentioned in Article III A & B above (2 copies in English and 10 copies in French of each report) shall be submitted to the USAID/Contracting Officer whose signature is affixed hereto.

ARTICLE IV - PERIOD OF CONTRACT

This contract is effective on the date shown on the Cover Page and all work and services required hereunder shall be completed by

August 31, 1979.

ARTICLE V - FIXED PRICE AND METHOD OF PAYMENT

1. The fixed price to the Government for the satisfactory performance of all work and services required under this contract covering all three phases of activities is \$30,000. The contractor is entitled only to the amount of actual reimbursable expenses (defined in Article V 4 below), but not to exceed \$30,000. Incremental funding will be made in three tranches. The first tranche to be obligated upon the execution of the contract. Phases 2 and 3 will be provided upon successful completion of the first phase and subject to the availability of funds.

The contractor shall be entitled to an initial start-up advance of not to exceed \$8,000 upon the signing of the contract. If additional funding is provided in phases 2 and 3, the contractor shall be authorized an additional advance if the contractor has cleared the last preceding advance, prior to, but not exceeding 30 days, both the second and third phases of the contractor's work/arrival in Mali; and the remainder upon satisfactory completion of all work under the contract as determined by the USAID/Bamako Director.

2. To obtain all payments under this contract, the contractor shall submit to the USAID/Bamako Director or his designee, a SF 1034 original and four (4) copies thereof, itemizing in detail and by line item reimbursable expenses actually incurred under this contract. All requests for payment must be approved by the USAID/Bamako Controller or his designee. The contractor may request a check in either U.S. dollars or local currency.

3. In the event that the Government allows the contractor use of its vehicles and/or the USAID Guest House facilities, the amount of this grant shall be reduced by the value thereof. (The rental value of USAID/Bamako vehicles is \$35/day. The per diem rate is reduced by fifty percent of the established rate for each day that the contractor uses U.S. Government furnished quarters.)

4. Reimbursable Expenses:

Secretary and administrative assistant	\$ 3,000
Rental of vehicles, fuel and chauffeurs expenses outside Bamako.	\$ 3,000
Per diem	\$19,000
Miscellaneous	\$ 5,000

An adjustment between line items of 15% is authorized without an amendment to this contract. Expenses incurred prior to contract are reimbursable.

ARTICLE VI - LOGISTICAL SUPPORT

A. The contractor shall be provided with the following logistical support:

1. office space
2. one non-electric typewriter
3. miscellaneous office supplies (paper, stencils, etc.)
4. whenever available, the use of USAID/Bamako Mission vehicles, and chauffeurs outside Bamako.

B. Efforts will be made to provide the contractor with access to privileges and/or services, in accordance with existing rules and regulations concerning their use by non-direct hire short-term employees, granted to direct hire U.S. citizen employees. Access to health room facilities for U.S. citizen members of the contract team are granted only upon the agreement of the Ambassador and must be applied for.

In no case will access to health facilities be authorized without a physician's statement that the contract team member has undergone a recent physical and is cleared for assignment at a post where health facilities are at a minimum.

ARTICLE VII - ALTERATIONS IN CONTRACT

The following clauses of the General Provisions are deleted:

2, 7, 8, 9, 13, 15, 17, 19, 20, 22, 24, 26, 28, 30, 33 and 34.

72-491300
820-52-688-20-10-81
6888264
CDO/Bamako : Cont. Off.

POSTED IN :
A/cot. Ldg. 8/24/81
Dist. Ldg. _____
M. O. D _____

PROJECT SUMMARY

A. 1. PROJECT TITLE

Baseline Study of Agricultural Extension Training in Mali.

2. PROJECT FUNDING

a. Tuskegee Institute's 211-d project will fund:

- (1) Salaries and fringe benefits for faculty and graduate students.
- (2) International travel for Tuskegee faculty and students associated with project activities.
- (3) U.S. travel for Tuskegee faculty and students associated with project activities.
- (4) All office, communication and other costs associated with the project in the U.S.

b. USAID/Mali will provide:

- (1) In-country (Mali) travel and per diem for Tuskegee faculty and students for activities associated with the project.
- (2) In-country logistical support for project activities.
- (3) In-country office and secretarial services for project staff.

B. PROJECT PURPOSE

The purpose of the project is to provide pre-project studies of the extension training activities that can be utilized by the contractor, USAID/M and GOM in the Agricultural Officers Training Project by September, 1979.

C. DESCRIPTION OF PROJECT

The project will have six distinct components:

1. Sociological profile of extension workers in two major agricultural areas in Mali--Haute Vallee and Mopti. Survey data will be collected which will profile socioeconomical backgrounds, educational characteristics, job descriptions and

selected attitudes toward extension service. C.A.A. trained extension workers will be compared with non-C.A.A. trained extension workers.

2. Description of actual extension activities. Using observational techniques at three different points in time during the agricultural calendar a report will be written describing how extension workers are currently being utilized in Mali. It will focus on: the proportion of time allocated to various activities, number of producer contacts and type of service rendered.
3. Description of producers' knowledge of, attitudes toward and participation in extension activities.
Using unstructured interviews, the project team will obtain data characterizing the extension service from the producers' point of view.
4. Review of existing agricultural officers training program (CAA) with emphasis on:
 - a. the academic soundness of the curriculum.
 - b. the interface between training, research, extension and actual farmer practices.
 - c. the appropriateness of the training to actual on-the-job extension activities.
5. Design of 3rd year in-service practicum for the C.A.A.'s.
Using results from the first four project activities, extension specialists from Tuskegee will make recommendations for a 3rd year in-service practicum for the C.A.A.'s. This will be done in consultation with GOM, USAID/M and the contractor for the project.

6. Recommendations for retraining of existing extension workers.

The project staff will recommend specific extension workers for retraining and will recommend specific types of retraining.

D. LENGTH OF PROJECT

The proposed project is a fifteen (15) month activity and would commence June, 1978 and terminate August, 1979.

E. PERSONNEL

The Tuskegee team would be composed of a rural sociologist (team leader), extension specialists, agricultural education specialists, research assistants and graduate students. The team leader will be involved in all project activities and will be responsible for the production of all reports. Other personnel will be employed at appropriate times and for specific activities. It is estimated that 20mm of faculty time and 12mm of graduate student time will be devoted to the project.

F. EVALUATION OF PROJECT

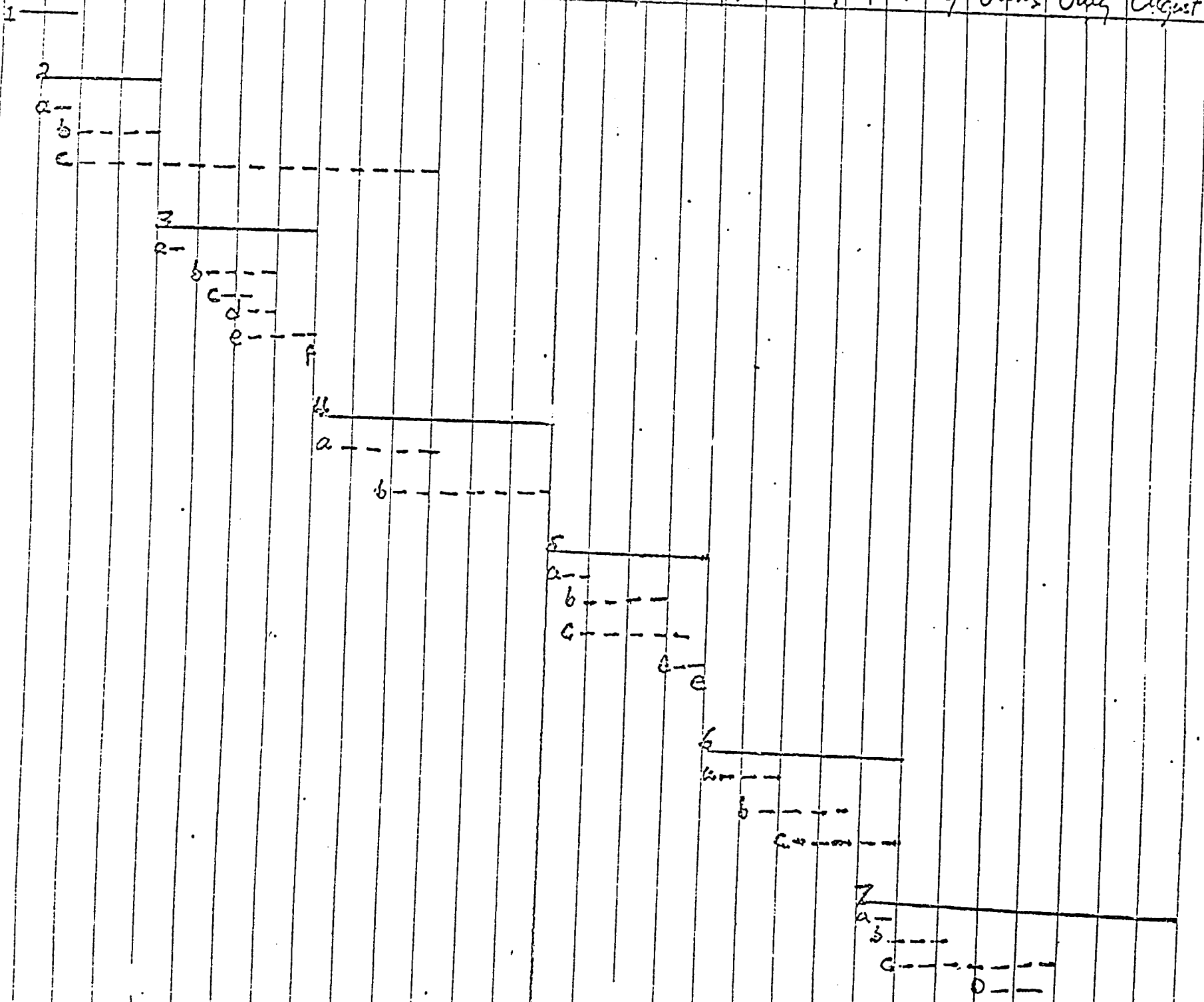
It is proposed that two informal evaluations of the project be made by the 211-d staff, GOM and USAID/M at key points in the project. These evaluations will be used to monitor the progress of the project and to revise the plan of work for the project. It is also proposed that a final evaluation be made of the project by GOM and USAID/M with input from the Tuskegee 211-d staff.

CRITICAL PERFORMANCE INDICATORS

1. Project Agreement--Memorandum of Understanding between Tuskegee 211-d and USAID/M agreed to. June, 1978.
2. Preproject Activities. June 15-July, 1978.
 - a. Selection of Tuskegee participants for Phase 1 of project.
 - b. Project related workshops and other orientation activities.
 - c. Begin language training for later participants.
3. Phase 1--Initiation of Project (Activity in Mali). August-September, 1978.
 - a. Team arrives in Mali. Orientation by USAID/M, GOM and contractor. Visits to representative project sites, CAA's and other relevant places.
 - b. In field observation of extension activities. Project staff will accompany extension workers as they perform routine tasks. Visits with producers.
 - c. Development and pretesting of interview schedule for extension worker survey.
 - d. Selection of sample for extension worker survey.
 - e. Data collection for extension worker survey.
 - f. Review of project status by GOM, USAID/M and Tuskegee 211-d
4. Phase 2--Analysis of Extension Worker Survey (Activity in U.S.) October--December, 1978.
 - a. Generation of report on characteristics of extension workers.
 - b. Workshops and seminars on alternative models for agricultural training and extension in developing countries.
5. Phase 3. Assessment of Existing Agricultural Officers Training Activities (In Mali). January-February, 1979.

- a. Review of curriculum.
 - b. Study of interface between research, teaching, extension and actual agricultural practices.
 - c. In field observations of extension and farming activities.
 - d. Generation of preliminary findings and recommendations concerning existing Agricultural training program.
 - e. Review of the status of project by GOM, USAID/M AND Tuskegee 211-d staff.
- 6., Phase 4--Preliminary Design of 3rd year in-service practicum for C.A.A.'s (In U.S.). March--May 15, 1979.
- a. Generation of report concerning current agricultural officers training in Mali.
 - b. Workshops and seminars on the use of in-service practicum for extension training.
 - c. Preliminary design of 3rd year program.
7. Phase 5. Summary Project Activities (In Mali). May 15, 1979.
- a. Workshops with participants from Tuskegee 211-d, GOM, USAID/M and contractor on the proposed 3rd year in-service practicum.
 - b. Report completed and presented for 3rd year practicum.
 - c. In-field observations of extension workers and producers.
 - d. Preparation and presentation of report on producer attitudes toward extension.
 - e. Preparation and presentation of summary report on extension service.
 - f. Identification of extension personnel for retraining and recommendations for types of retraining.
 - g. Debriefing and evaluation.
8. End of project

June July August September October November December January February March April May June July August September



Tuskegee 211-d

AID 1020-28 (1-72)

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

June 1978 - August 1979

Life of Project:
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: Baseline Study of Agricultural Officers Training in Mali

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector, Goal: The broader objective to which this project contributes:</p> <p>To improve the quality of the Agricultural Officers' Training Program in Mali.</p>	<p>Measures of Goal Achievement:</p> <p>Redesign of CAA's</p>	<p>Reviewed curriculum and for CAA adopted by GOM</p>	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1. Proposed changes in Ag Officers training program are economically viable. 2. GOM is willing to make necessary structural and policy changes in educational and agricultural agencies. 3. Existence of required trained personnel. 4. Existence of necessary physical facilities.
<p>Project Purpose:</p> <p>To provide GOM, AID/M and contractor with both quantitative and qualitative evaluations related to the existing agricultural officers training program in Mali to be used in the redesign of training program. DATE: September, 1979.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>GOM, AID/M and contractor have empirical basis for revision of CAA curriculum.</p>	<p>Rationales curricula changes in CAA are predicated on empirical data for the existing systems.</p>	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. GOM, AID/M and contractor will receive utilize existing Tuskegee's reports 2. Results from Tuskegee's research are representative and relevant.
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Profile of sociological and educational characteristics and attitudinal study of agricultural extension agents in Haute Vallee and Mopti areas 2. Analysis of client producers characteristics and client attitudes toward extension activities. 3. Review of existing Ag training activities with emphasis on 3rd year. 4. Recommendations for third year in-service training program. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1. Statistical tables and narratives profiling extension workers in Mali based on interviews with about 40 agents each in Mopti and Haute Vallee areas by June, 1979. 2. Statistical tables and narratives describing producers and their types contracts with extension based on at least 20 contact in each area. 	<p>Project Reports</p>	<p>Assumptions for achieving outputs:</p> <ol style="list-style-type: none"> 1. That Tuskegee personnel will have the cooperation of extension personnel and producers for interview purposes. 2. GOM will provide necessary information concerning CAA and Ag training.
<p>Inputs:</p> <p>Identification of extension personnel needing additional training</p> <p>TUSKEGEE Personnel International Travel U.S. COSTS AID/M Per Diem for Tuskegee staff in Mali Logistical support for team in Mali</p>	<p>Implementation Target (Type and Quantity)</p> <ol style="list-style-type: none"> 4. Proposed curricula for 3rd year program at CAA. <p>Tuskegee 20 hrs faculty time--\$50,000 2 graduate students±0,000 \$15-25,000 for International travel \$2-3,000 Supplies, comm, etc.</p>	<p>Scheduled on-site evaluation of 211-d project.</p>	<p>Assumptions for providing inputs:</p> <ol style="list-style-type: none"> 1. That 211-d funds will continue to be available to Tuskegee during the life of the activity. 2. That AID/M continues to view proposed activity as beneficial to the development effort in Mali.

APPENDIX C

SOCIAL SCIENCE EDUCATION FOR DEVELOPMENT

Proceedings of an organized session
of the 1978 Annual Meeting of the
Society for Applied Anthropology,
Merida, Yucatan, Mexico

edited by
William T. Vickers
Glenn R. Howze

TUSKEGEE INSTITUTE
CENTER FOR RURAL DEVELOPMENT
Tuskegee Institute, Alabama

1978

PREFACE

The theme chosen for the 1978 Annual Meeting of the Society for Applied Anthropology in Merida, Yucatan, Mexico was "Regional Development." In consideration of this topic, we at Tuskegee Institute decided to organize a symposium which would focus on the relationships between social science education and development. Our interest derived from the fact that in 1977 we had participated in the design and initial implementation of a five-year program entitled, "Comprehensive Planning for Rural Development" in cooperation with the United States Agency for International Development. The eventual goals of this project are to expand and enhance Tuskegee Institute's ability to train students for development-related careers, to allow faculty to conduct development research and engage in consultation activities, and to increase the Institute's information capacity via the acquisition of appropriate library and computer software resources. Because we were embarking on a program of institutional development we were interested in learning more about the development-related programs and methodologies employed by social scientists in other educational and research institutions.

Although we originally conceived of the symposium in terms of the social sciences in general, the papers presented here were all authored by anthropologists. This is attributable in large measure to the fact that it was not possible for our nonanthropological invitees to secure financial support for an overseas anthropology meeting. Nevertheless, we feel that the papers and subsequent commentary present useful information for specialists in many fields, particularly for those who

have an interest in social science applications in development, or who seek insights into how social science practitioners view their current status and potential contributions within the development field.

The initial paper by Vickers serves as an introduction to the symposium and discusses the future of anthropological employment and the status of anthropologists within development agencies, with particular emphasis on AID. Angrosino and Kushner follow in a paper that details the structure and results to date of one of the most innovative programs of applied anthropological training in any American university--that of the University of South Florida. They point to the total faculty involvement and institutional commitment needed to develop a viable internship program. Because applied programs by definition involve multiple institutional contexts, considerable effort is required to develop and maintain functional relationships between students, government and service agencies, and the university. Academic departments contemplating an applied orientation or degree program will do well to study the University of South Florida experience.

The third paper by Brownlee and Giovannini focuses on a specific type of training for development oriented to the preparation of health care workers who will serve in cross-cultural contexts. Here the authors consider both the conceptual scope necessary for such programs and specific techniques which may be employed in the training process. This paper derives from insights and experience gained in health-care delivery programs which the authors have participated in at Boston University. The paper by Millsap deals with the new field of social impact assessment (SIA) which derives from federal legislation requiring social impact

statements for utilization in project planning and implementation.

Although the involvement of anthropologists in SIA has not been as great as that of other social scientists, Millsap argues that they have much to offer in this area. In this paper he gives the history of the social impact assessment legislation and describes the specific skills and procedures appropriate to the practice of SIA.

In the final paper Werge describes the innovative social science techniques employed in the agricultural development training programs of the International Potato Center in Peru. As the staff anthropologist of the Center, Werge has been involved in the design and presentation of learning exercises for agricultural specialists and extension workers. One of the primary goals of these activities has been to increase the effectiveness of the "experts" by sensitizing them to indigenous agricultural practices and expertise. The comments of two distinguished discussants, Paul L. Doughty and Alexander Moore follow the papers. Their analyses, along with the remarks of members of the symposium audience, provide useful insights into the issues raised by the topic of education for development--particularly with regard to the conceptualization of applied anthropology and "development"--and suggest additional approaches for the realization of more productive forms of involvement between anthropologists and development agencies and institutions. Finally, acknowledgment is given to the Agency for International Development for making the publication of the symposium proceedings possible through an AID 211(d) grant to Tuskegee Institute.

William T. Vickers
Glenn R. Howze
Tuskegee Institute

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- Sociology 360. Applied Anthropology. 2nd Semester. Lect. 3; Cr. 3 (Prerequisite; Sociology 340). This course focuses on the uses of anthropology and introduces methods in the application of anthropological principles, directed culture change, the structure and functioning of bureaucracies, and professional ethics in applied anthropology. Case histories of various types of development programs are analyzed and discussed.
- Sociology 460 G. Problems of National Integration in Developing Nations 1st Semester. Lect. 3; Cr. 3. The study of culture and society in the nation-state, including processes of nationalization, national symbols, policy making, institutions, urbanization, and economic integration and development. The special problems of indigenous peoples, peasantries and ethnic minorities in developing nations are discussed.
- Sociology 465 G. Methods for Anthropological Research. 2nd Semester. Lect. 3.; Cr. 3. (Prerequisite: Sociology 340). This Course presents a survey of the theoretical assumptions and methods of ethnological research, including the design; organization and execution of research projects, the selection of research sites, participant observation techniques of interviewing, the genealogical method, field censuses, techniques for the quantitative study of subsistence systems, record keeping, field photography, the natural history approach in community studies, and the recognition of formal and informal structures.
- Sociology 543 G. Processes of Sociocultural Change. 1st Semester. Lect. 3; Cr. 3. (Prerequisite: Sociology 240 or 340). The study of theories of cultural evolution and change, including processes of invention, diffusion, acculturation, culture contact, colonialism, urbanization and modernization. Various models for development and the potentialities and limitations of technology are discussed.

Tuskegee & Institute International Development



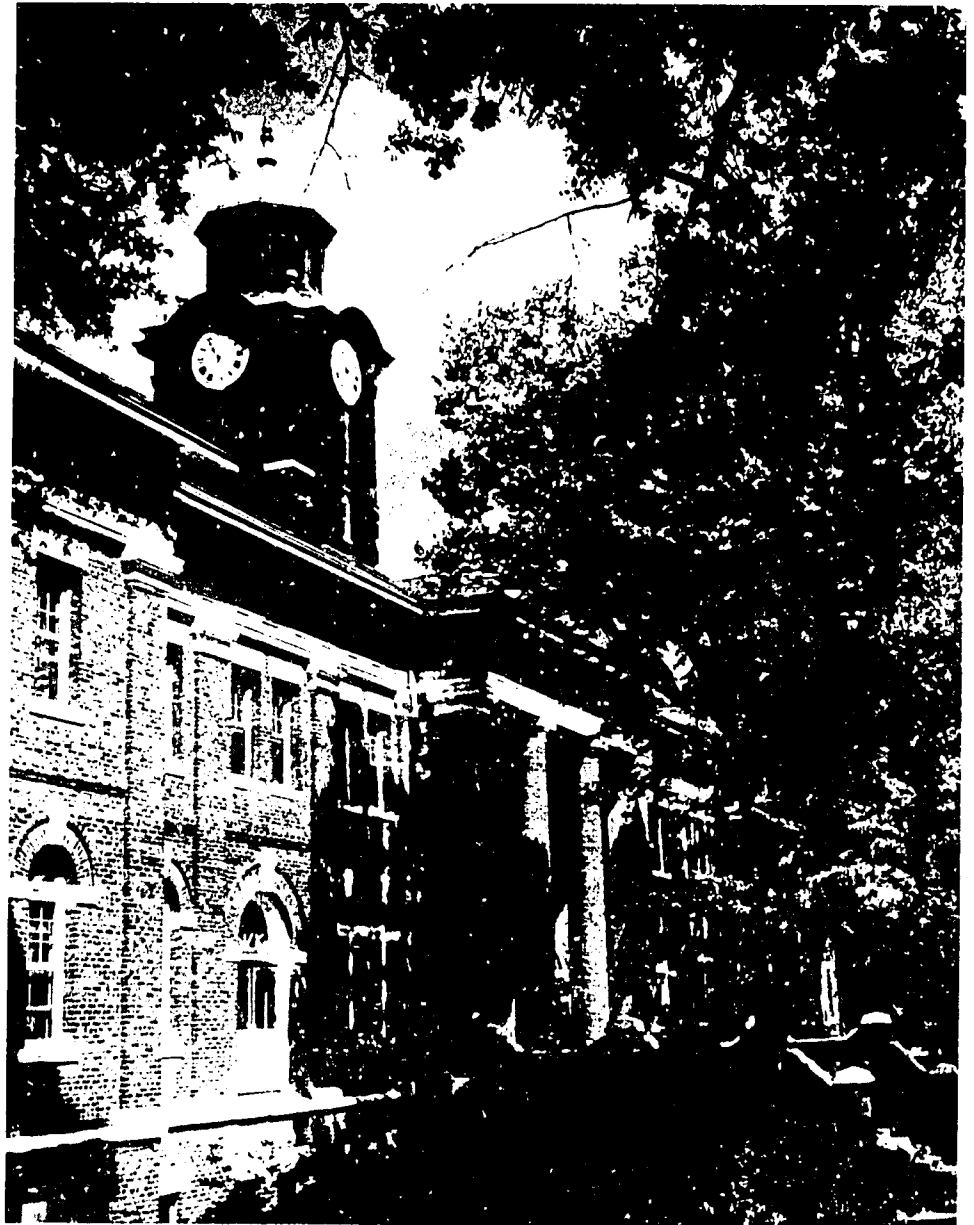
Tuskegee Institute, Alabama 36088

Introduction

This brochure is a guide to Tuskegee Institute's past involvement, current programs and areas of expertise in the area of international development. It outlines the history and philosophy of the Institute, and provides brief descriptions of the foreign research and service activities of the faculty. The intent is to provide essential information that will assist in the utilization of the resources of the Institute so that it may further its traditional goal of service to mankind.

Tuskegee Institute is a unique institution in that it was founded to meet the educational and developmental needs of black Americans, a disadvantaged segment of American society, in a region where material resources and broad-based popular support were often scanty or absent. The central purpose of the Institute has always been that of providing pragmatic educational assistance within the particular historical and social context of the American South. Tuskegee has been a pioneer in the areas of agricultural extension, self-help, and what is now called "rural community development." The enduring strength and world-wide fame of the Institute attest to the validity of the original Tuskegee concept and its continuing relevance in the modern world.

The Tuskegee approach for dealing with developmental problems and limited resources is especially significant with regard to the problems faced by the emerging nations of the world. As a consequence of Tuskegee Institute's unique history and interests, the institution has attracted a faculty dedicated to humanitarian service and possessing technical and professional expertise



White Hall on the campus of Tuskegee Institute.

of the highest order. Through the years, Tuskegee has participated in a number of international assistance programs, and has long received students from Africa, Asia, the Caribbean and Latin America. Today, the Institute is joining with the United States Agency for International Development in a five-year 211(d) partnership entitled, "Comprehensive Planning for Rural Development," that is

designed to broaden Tuskegee's participation in the international development effort. The faculty and administration of Tuskegee Institute are committed to the principle of human development wherever individuals seek to improve the conditions of their existence.

*Cover:
Charles Keck's famous sculpture depicting
Booker T. Washington lifting the veil of igno-
rance from his people.*

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Tuskegee's Tradition of Service

Tuskegee Institute was founded in 1881 by Booker T. Washington, an ex-slave who had been called from Hampton Institute in Virginia to start a school to provide education for the Negro youths of rural east Alabama. Although The Alabama General Assembly had pledged an annual appropriation of \$2,000 for teacher's salaries at the new school, Washington found no buildings, property or equipment upon his arrival. Determined to carry out his mission, Washington began by teaching a handful of students in a dilapidated shanty. Soon, thereafter, he moved his school to a worn out cotton plantation to which he had obtained the rights with a down payment of \$250. Washington instructed his students to plant vegetables for food and trees for shade, and set about building the institution that was soon to be world famous.

Following Washington's philosophy of providing practical skills and knowledge applicable to the problems of economically deprived Southern rural Negroes, Tuskegee Institute devoted the first half of its existence to being essentially a normal and technical school. It provided basic education for all its students and allowed them to specialize in such vocational areas as teaching agriculture, building trades and clothing arts. During this period, Tuskegee Institute also established outreach programs to serve the needs of the surrounding areas.

In 1896 Booker T. Washington recruited George Washington Carver from the Iowa State College of Agriculture and Mechanical Arts to head the agricultural department and experiment station at Tuskegee. Despite the fact that cotton monoculture had exhausted the Alabama soil, Carver was successful in producing large increases in the yields of his experimental plots through a strategy of crop diversification. By 1897 he was loading a buggy with demon-

stration materials and traveling into the countryside to instruct poverty-stricken farmers in his improved agricultural techniques. This was the beginning of the Negro Agricultural Extension Service, which served as a model for later extension efforts by the U.S. Department of Agriculture.

Much of Carver's current fame derives from his innovative research with peanuts, sweet potatoes and other southern crops. This work was of signal importance to the whole region, for it contributed to the transformation and modernization of southern agriculture. Bob Bergland, the Secretary of Agriculture of the United States, has written of Carver in the following terms:

The Department (of Agriculture) enjoyed a long and close association with this outstanding scientist and humanitarian. His work as a botanist, agronomist and pioneer conservationist was a cornerstone of many of our Department's major programs. Dr. Carver was a pioneer in the industrial utilization of farm products, in the recycling of agricultural waste and in the expansion of markets for American grown commodities. His early efforts at taking scientific knowledge directly from the laboratory to the farmer remains a model today.

From its founding Tuskegee Institute has modified its programs to meet the changing economic and social needs of disadvantaged people. A college curriculum was added in 1927 and since that time Tuskegee Institute has shifted from an institution offering essentially high school and vocational education to one providing baccalaureate and graduate instruction. Currently,



George Washington Carver supervising student work at the Experiment Station.

Tuskegee has 32 degree-granting departments organized into six major academic areas — College of Arts and Sciences, School of Applied Sciences, School of Education, School of Engineering, School of Nursing, and School of Veterinary Medicine. Tuskegee Institute is fully accredited by the Southern Association of Colleges and Schools.

Tuskegee Institute's concern for the problems of the rural poor continues. During the past few decades, Tuskegee Institute has been involved in countless research, demonstration and extension programs designed to aid agricultural and general rural development.

Tuskegee Institute's past and present agricultural and rural development activities make it especially qualified to participate in cooperative programs designed to improve the performance and contribution of the agricultural and rural sectors of the developing nations to their overall economic and social development objectives. It has a unique set of institutional resources which qualifies it to undertake a wide range of tasks related to overseas agricultural and rural development.

Selected Academic Units



Students practicum in veterinary medicine.

Department of Agricultural Sciences

The Department of Agricultural Sciences is composed of three interrelated programs – animal and poultry sciences, plant and soil sciences and environmental science. Both undergraduate and graduate programs are offered. Of particular significance is that of the 137 foreign students at Tuskegee, well over half are enrolled in agricultural programs.

School of Veterinary Medicine

The School of Veterinary Medicine was established in 1945 and is fully accredited by the Council on Education of the American Veterinary Medicine Association. A professional four-year course

leading to a Doctor of Veterinary Medicine and a Master of Science in Veterinary Medicine are offered. Tuskegee has played a major role in training veterinarians for service in other nations. The school operates an extension service for large animals.

School of Nursing

The program leading to the Bachelor of Science degree in Nursing, instituted in 1948, was first established as a hospital training program in 1892 and later a diploma program in 1908. It has the distinction of being the first baccalaureate nursing program in the State of Alabama. The program which is comprehensive, prepares practitioners for beginning leadership roles in nursing and for

participation in active collaboration with others concerned with the maintenance and promotion of health and the prevention of disease. Nursing at Tuskegee emphasizes family and community health problems and development, especially in rural and underdeveloped settings.

Department of Economics

The curriculum leads to a B.S. degree in Economics. A major emphasis in the program is international and development Economics. Several faculty members are from developing nations and have interests in the special economic problems of development.

Department of Sociology

An undergraduate program is offered in Sociology. Courses are offered in rural Sociology, sociocultural change, and international development. Among the members of the faculty are two rural sociologists and an anthropologist.

Department of Black Studies

The black studies program is designed to prepare students for careers in community development, business, foreign service in the U.S.A., Africa, and the Caribbean. About one-half of the courses relate directly to Africa.

Research Units

Carver Research Foundation

The Carver Research Foundation of Tuskegee Institute was incorporated by Dr. Carver and his associates in 1940 as a private foundation. The initial funds of incorporation were the personal savings of Dr. Carver. Since that time the work of the Foundation has been supported by grants and contracts from business, foundations, and government agencies. Since its founding the Foundation has been concerned with carrying

out the objective of Dr. Carver: to advance knowledge through research in agriculture, the natural sciences and related areas as well as other pure and applied sciences.

The Division of Behavioral Science Research

Over the years Tuskegee Institute has had a distinguished history of involvement in organized social research and data collection. Some of the early research organizations were the Rural Life Council, the Department of Records and Research and the Office of the Director of Research. In 1967 the social research activities in

Tuskegee Institute were reorganized under the Division of Behavioral Science Research. The focus of research in the Division includes race relations, poverty and rural development.

Tuskegee Institute Center for Rural Development

The newest social research organization at Tuskegee Institute is the Center for Rural Development. It is currently being funded with United States Department of Agriculture-Cooperative State Research Service (U.S.D.A.-C.S.R.S.) funds.

Extension Units

Human Resources

Development Center

The Human Resources Development Center is currently the major outreach unit at Tuskegee. Its major function is the operation of extension and demonstration programs designed to deal with the major social and economic problems of the disadvantaged in the

rural South. During the past several years, various members of the HRDC staff have been involved as consultants dealing with development problems in various nations.

Cooperative Extension Service

A major subunit of the Human Resources Development Center is the Cooperative Extension Service unit at Tuskegee Institute. The extension efforts at Tuskegee are directed toward the most economically disadvantaged of the rural population in the area.

Involvement in International Development Programs

Tuskegee's overseas involvement began almost immediately after its founding at the end of the 19th century. Educational leaders around the world recognized the utility of Tuskegee's approach to vocational and agricultural education. Tuskegee became the pattern for a large number of industrial schools throughout the world.

In 1900, Dr. Booker T. Washington was asked by the German government to send a Tuskegee team to Togo to teach cotton cultivation. The venture was a success and other colonial governments in the area adopted the methodologies and principles of the Tuskegee team.

Through the years various individuals from Tuskegee Institute have been called upon to share their knowledge with the developing nations. Tuskegee's involvement with contemporary international development efforts began in the mid-1950s and has continued to the present.

Technical Assistance Program for Vocational Education in Indonesia (1954-59)

Tuskegee Institute joined with the Ministry of Education of Indonesia in a cooperative venture in vocational education funded by U.S.A.I.D. Tuskegee's major task was to provide in-service training to

teachers in order to upgrade the level of technical instruction. This involved the planning, supervision and operation of teaching programs and the development of Indonesian counterparts so that the activities could continue without outside assistance. Other assignments included the improvement of existing technical school shops and the development of new facilities. Tuskegee faculty also served as consultants for the overall program of technical education in Indonesia.

Development of Rural Teacher Training Institutes in Liberia (1960-69)

This project was conducted under a U.S.A.I.D. contract which called for Tuskegee Institute to assist the Government of Liberia in the establishment of teaching training institutes whose graduates will fill the teaching positions created by the country's expanding rural school development program.



Black Belly Ewe project in South America directed by graduate of Tuskegee Institutes Animal Science Program.

Tuskegee helped to establish two rural teacher training institutes, one at Zorzor (1961) and the other at Kakata (1964). By 1964 the combined enrollment of these institutions was 225 and by 1967 the maximum capacity of 375 was achieved.

In addition to providing the initial staffing for the teacher training program, Tuskegee Institute's team set up the administrative organizational structure and provided personnel in operational and advisory roles; developed the curricula, syllabi, and course outlines for the institutes; provided vocational schools, teacher workshops, and other training for in-service teachers and institute staffs.

Guyana Livestock Management Program (1968-72)

This program was designed to provide subprofessional training for potential livestock producers and Ministry of Agriculture employees in Guyana. It was funded by U.S.A.I.D. The training was provided at Tuskegee and included a wide range of practical training in animal science, feeding, animal breeding, pasture management, veterinary science and ranch management. Forty-two participants completed the training and are currently employed in the livestock sector in Guyana.

West African Poultry Project (1972-74)

The purpose of this U.S.A.I.D., Tuskegee Institute project was to train poultry producers in Mali, Senegal and Mauritania. The project staff trained a number of potential poultry producers and demonstrated that there is a demand in the area for broilers and eggs. However, the project was not an unqualified success because of the drought that occurred in West Africa during the program period.

Consortium on Tropical Ruminant Livestock Production (1972-78)

This is a U.S.A.I.D. 211(d) program intended to enhance the capability of Tuskegee Institute to study and analyze tropical livestock production systems. The other member institutions of the consortium are Texas A. and M. University, Purdue University and the University of Florida. The specific areas of responsibility for Tuskegee personnel are agricultural extension and sociological analysis.

Tuskegee participants in the consortium have produced a profile of livestock production in Guyana and a review of the extension service. The profile contains statistical descriptions of (1) The socio-economic characteristics of livestock producers; (2) characteristics of land use; (3) composition of livestock herds; and (4) attitudes of producers toward extension activities.

Tuskegee personnel have also been involved in several livestock projects in Mali as part of this 211(d) program.

U.S.A.I.D. 211(d) Grant for Comprehensive Planning for Rural Development (1977-82)

The purpose of this grant is to enhance Tuskegee Institute's multidisciplinary capacity to assist developing nations in the planning and implementation of programs in the areas of agriculture, marketing, socio-cultural analysis and new lands management. This 211(d) program will enable Tuskegee Institute to provide technical assistance overseas with an emphasis on the transference of appropriate technologies to small-scale agriculturalists.

The project is based on the recognition that (1) a majority of people in the developing countries are involved in subsistence agriculture, and (2) that one of the principal deterrents to development efforts has been the difficulty of formulating effective methodologies for the transference of technological innovations to traditional producers in varying social and cultural contexts.

The activities to be conducted under this program include overseas research and advisory services, specialized educational and training activities for Tuskegee faculty and students, formation of linkages with appropriate institutions, U.S.A.I.D. missions and foreign governments, and the development of additional information capacity via the acquisition of library materials, computer models, and the publication of research reports. This multidisciplinary effort will involve personnel from agricultural economies, rural sociology, anthropology, agriculture, animal sciences, veterinary medicine and extension.

Other Programs

In addition to the programs described above, Tuskegee Institute has participated or is currently engaged in a number of other international activities. From 1966-68 the Institute provided agricultural training for Peace Corps volunteers bound for Malawi. From 1976 to the present Tuskegee has participated in a program to evaluate and provide technical assistance to the educational system of Jamaica.

In 1977 a program was begun in horticultural improvement for the Yemen Arab Republic. Tuskegee



Foreign Ministers Malacela of Tanzania (l) and Nabwera of Kenya (c) visit with Tuskegee student.

faculty and staff are also called upon to provide short-term consultancies on a wide-range of overseas development problems each year. While many of these activities are conducted on an individual

basis, and do not involve the Institute directly, Tuskegee encourages its faculty and staff to become involved.

Officers of Administration

Luther H. Foster President
Andrew P. Torrence Provost, Executive Vice President
Lucius Williams Vice President for Business Affairs
Velma L. Blackwell Vice President for
Development Affairs
Cornelius L. Hopper Vice President for Health Affairs
Walter C. Bowie. Dean, School of Veterinary Medicine
Howard P. Carter. Dean, College of Arts and Sciences

Zbigniew Dybczak. Dean, School of Engineering
George E. Cooper Dean, School of Applied Sciences
Lauranne Sams Dean, School of Nursing
Grady Taylor. Dean, School of Education
T. J. Pinnock Director, Human Resources
Development Center
Lewis W. Jones Director, Center for Rural Development

Foreign Service Faculty

SCHOOL OF APPLIED SCIENCES

Cooper, George E., Ph.D. University of Illinois. Dean, School of Applied Sciences.

Dr. Cooper is an expert in ruminant nutrition. He has recently rejoined Tuskegee Institute as Dean of the School of Applied Sciences after two years as an animal nutritionist at Winrock International Livestock Research and Training Center, Arkansas. Prior to assuming his Winrock position, Dr. Cooper was a faculty member in the Department of Agriculture Sciences at Tuskegee and served as the Project Director of the U.S.A.I.D.-Tuskegee 211(d) project in Tropical Ruminant Livestock Production in Guyana (1972-77). In 1975 he traveled widely in West Africa as a member of a 211(d) team studying the effects of drought on livestock production, and has also served as a consultant in southern Africa.

Department of Agricultural Sciences

Maloney, M.A., Jr. Ph.D. Oklahoma State University. Professor of Animal Science. Head, Department of Agricultural Sciences.

Dr. Maloney served as Program Director for a U.S.A.I.D. sponsored 211(d) grant entitled "Expansion of Competency in the Design and Execution of Ruminant Livestock Development Programs for the Tropics" (1972-77). As members of a four university consortium, the Institute's faculty were involved in the development of a systems analysis of livestock development and obtained experience in selected countries of South America and Africa. Dr. Maloney also served as Campus Coordinator for an A.I.D. sponsored project to establish poultry production systems in Senegal, Mali and Mauritania (1972-74). During 1968-72, he coordinated the Guyana-Tuskegee Livestock Management Program which trained over forty students who returned to Guyana and are currently involved in ongoing livestock programs.

Mayberry, B. D., Ph.D. Michigan State University. Director of Tuskegee Institute State Experiment Station and International Agricultural Programs.

Mayberry is a specialist in horticulture, plant physiology, isotope technology, agricultural education and cooperative extension methods. In 1962 he represented the United States as a consultant on the peaceful uses of atomic energy in agricultural research, medicine, and atomic power in 16 nations in Africa and the Middle East. He has also visited Guyana (1967), Mali, Mauritania, Senegal and Nigeria (all in 1973), and the Yemen Arab Republic (1977) to assist in the establishment of U.S.A.I.D.-Tuskegee programs in range management, poultry production, and horticultural improvement. Dr. Mayberry has served as a consultant in agricultural development and extension to the Bahamas (1975) and Haiti (1976).

Allen, James R., Ph.D. Pennsylvania State University. Assistant Professor of Plant and Soil Science.

Dr. Allen is a specialist in crop physiology. He has conducted research on the relationships between leaf number, plant height, leaf area index and yield in 143 varieties of hybrid corn.

Biswas, Prosanto K., Ph.D. University of Missouri. Professor of Plant and Soil Science. Research Associate, Carver Research Foundation.

Dr. Biswas' areas of expertise include the metabolism of growth substances and herbicides by plants, the physiological responses of plants to growth regulators, and the economic evaluation of drip irrigation in vegetable crops. He has specialized post-doctoral training in radiological health, pesticide residue analysis of foods, measurement of airborne radioactivity, infrared spectroscopy and activation analysis. Dr. Biswas has published over thirty scientific articles on his research activities.

Du, Viet LE, Master of Forestry, Yale University. Instructor of Forest Resources.

Mr. Du is an expert in silviculture with specializations in nursery and plantation management. He has published pamphlets and articles on the reclamation of sand dunes, forest enrichment, reforestation, and the

mechanization of teak planting. Mr. Du previously served as the Chief of the Nature Protection and Reforestation Service (1970-74), Director of Water and Forestry (1974-75), and Chief of the Nature Protection Bureau (1966-69) of the Republic of South Vietnam. Mr. Du speaks English, French, and Vietnamese.

Felix, Arthur, Ph.D. Michigan State University. Assistant Professor of Animal Nutrition.

Dr. Felix is a specialist in ruminant livestock nutrition and dairy science. From 1963-66 he participated in dairy and forage production research at a F.A.O.-U.N. sponsored agricultural experiment station in Haiti. In 1967 he conducted research on molasses as a feed supplement for dairy herds in Costa Rica, and in 1977 taught dairy science at the Universidad Autonoma Agraria Antonio Narro in Saltillo, Mexico. Dr. Felix is Haitian and speaks English, French and Spanish.

Libby, David W., Ph.D. University of Maine, Orono. Assistant Professor of Agricultural Science.

Dr. Libby's areas of expertise include ruminant nutrition, forage evaluation and utilization of by-products. He is currently involved in research on the utilization of sweet potato vines as an alternate nutritional system for goats. Dr. Libby served as an instructor in Tuskegee's Guyana Ranch Management Program, and has made professional visits to Jamaica, Trinidad, Barbados and Curacao.

McGowan, Claude H., M.S. University of Florida. Extension Animal Husbandman, Alabama Cooperative Extension Service.

Mr. McGowan is responsible for the development of educational programs related to beef cattle and swine nutrition, selection and management. In 1975 he served as a member of a U.S.A.I.D. feasibility team in Togo and The Gambia, and in 1977 he performed similar services for a livestock production study team in Chad. He has authored numerous extension cir-

culars dealing with animal production and management techniques. Mr. McGowan is a native of Guyana and speaks conversational French.

Oliveira, Doris M., D.V.M. Tuskegee Institute. Research Associate, Department of Agricultural Sciences.

Director, Caprine Research Program. Dr. Oliveira is an authority on small ruminants and is currently directing a research program in goat production with the support of the Rockefeller Foundation and the Cooperative States Research Service of the U.S. Department of Agriculture. She has traveled extensively observing animal production methods and participating in international conferences on small ruminants. The countries she has visited include Ivory Coast, Ghana, Nigeria, Zaire, Guyana, Mexico, and the islands of St. Martin and Antigua in the West Indies. She speaks French and Spanish. Dr. Oliveira came to Tuskegee from the faculty of the Department of Pathology, College of Physicians and Surgeons of Columbia University where she taught, conducted surgical research, and practiced laboratory animal medicine for eight years.

Whitley, Booker T., Ph.D. Rutgers University. Professor of Plant and Soil Science.

Dr. Whitley is a world-renowned authority on the sweet potato, which he has crossbred to produce new varieties which are suitable for both human consumption and as feed for livestock. He is an active researcher, and is currently engaged in a number of projects in plant breeding and adaptation studies on various fruits. These studies are supported by the U.S. Department of Agriculture's Cooperative States Research Service. Dr. Whitley has served as a consultant to various Caribbean nations, Ghana (1960-62), England, France and Germany (1964). He has published numerous articles and reports on his research activities. Dr. Whitley speaks English, German and French.

Department of Architecture

Dozier, Richard K., M.A. Yale University. Professor of Architecture. Head, Department of Architecture.

Professor Dozier has considerable foreign experience. In 1970 he traveled to Nigeria, Togo, Ivory Coast

and Ghana to survey and study West African architecture, and in 1972 he made a survey of housing development in the Ivory Coast and Ghana. In 1978 he visited Italy, France, England and Spain in conjunction with the Architectural Conservation International Centre, Rome. He has published several articles on Afro-American architecture and the architecture of Africa.

Goodwin, Robert T., M.A. Tuskegee Institute. Instructor of Building Technology.

Mr. Goodwin served in England, France and Belgium as a member of the armed forces. He speaks some French.

Holland, Major L., B. Arch. Howard University. Assistant Professor of Architecture.

Mr. Holland travelled to Japan and Korea as a member of the armed forces and participated in various military construction projects. He has visited Mexico and frequently travels to the Caribbean.

Hooper, William T.F., M.S. University of Pittsburgh. Professor of Architecture.

During 1961-64 Dr. Hooper served as Visiting Lecturer from Northwestern University to the University of Khartoum, Sudan, where he taught structural design to civil engineering and architecture students. He organized the National Building Research Station of the Sudan and was appointed its first director. He also traveled extensively in Sudan and Egypt studying construction methods and the use of indigenous building materials. In 1964 Dr. Hooper studied the historical architecture of Greece and lectured at the School of Ekistics in Athens. From 1964-68 he was a member of a United Nations team of advisors to the Royal Government of Afghanistan in the development of a housing and town planning authority. Dr. Hooper has also conducted research on town planning and other architectural topics in India, Iran and the United Kingdom and speaks Arabic, Farsi, and some conversational French.

Peniston, Gregory S., B. Arch. Howard University. Assistant Professor of Architecture.

Mr. Peniston has visited Ghana, Upper Volta and Mali for the purposes of studying African architecture. He is a candidate for the doctorate in Architecture at the University of Michigan. He has a speaking knowledge of Spanish and a reading knowledge of French.

Sehgal, Raji, M. Arch. and M. Urban Design Washington University. Associate Professor of Architecture.

Professor Sehgal has made several trips to Great Britain to study the

socioeconomic aspects of planning and has studied planned communities in England, Scotland and France. He has also conducted research on the planning and design of low and middle income housing, and 12-15th century Islamic architecture in India. Professor Sehgal has visited Thailand, Hong Kong, Japan, Canada and Great Britain. He speaks English, Hindi and Urdu.

Other Departments

Chung, Konald A., Ph.D. Purdue University. Professor of Food Science and Human Nutrition. Research Associate, Carver Research Foundation.

Dr. Chung is a specialist in the areas of food safety, food biochemistry, toxicology, metabolism and nutrition. He has published over 25 scientific papers deriving from his research activities. Dr. Chung has participated in scientific meetings and made study tours to many nations, including the Soviet Union, Japan, England, France, Spain, Portugal, and Germany and the Scandinavian countries.

Louis, Suchet L., Ph.D. University of California-Davis. Assistant Professor, Department of Home Economics and Food Administration.

Dr. Louis is a specialist in nutrition. In 1977 he participated in a rural development research project in Upper Volta in conjunction with the United States Agency for International Development and the South-eastern Consortium for International Development (U.S.A.I.D.-S.E.C.I.D.). He conducted research in Costa Rica from 1965-67 and taught in Zaire during 1967-69. He has also visited Panama, Nicaragua, Belgium, Holland, Italy and France. Professor Louis has published a number of scientific papers on nutrition in national and international journals. He is a native of Haiti and speaks English, French and Spanish.

Sara, Tejinder, Ph.D. University of Massachusetts. Assistant Professor of Business.

Dr. Sara's areas of expertise include the ability to develop accounting and financial information systems for cost-benefit analysis in developing nations, and the formulation of economic policies, measures, and programs to stimulate economic development. One such research project he conducted was entitled, "Cost-Benefit Analysis in Developing Countries: Case Study of a Fertilizer Plant in India."

COLLEGE OF ARTS AND SCIENCES

Division of Social Sciences

Ejimofor, Cornelius, Ph.D. University of Oklahoma. Professor of Political Science.

Dr. Ejimofor is a native of Nigeria and speaks English and Ibo, and has a reading knowledge of French. He is a specialist on African affairs, with emphasis on American foreign policy vis-a-vis southern Africa. He has also conducted research in England on British Colonial policy in Nigeria.

Ghartey-Tagoe, Abenaa F., M.A. University of Toronto. Research Associate, Division of Behavioral Science Research, Carver Research Foundation.

Ms. Ghartey-Tagoe is a native Ghanaian and speaks English, Akan



Dr. Edward T. Braye (left) of Tuskegee, meeting the Honorable Prime Minister Forbes Burnham of Guyana.

(Twi-Ashanti, Fanti) and Ga. She has served as an instructor of Twi to Canadian University Service Overseas Personnel (C.U.S.O.), and serves as a representative of the Carver Research Foundation on the Advisory Committee of Tuskegee Institute's U.S.A.I.D. - sponsored 211(d) grant entitled, "Comprehensive Planning for Rural Development."

Howze, Glenn R., Ph.D. Washington State University. Professor of Sociology. Head, Department of Sociology.

Dr. Howze is a specialist in rural sociology, development, and computer applications in the social sciences. He conducted a socioeconomic survey of livestock producers in Guyana as a member of a Tuskegee Institute program supported by the United States Agency for International Development. He has also served as a U.S.A.I.D. consultant in an evaluation of range management projects in Nigeria, has investigated livestock projects in Mali, and is presently Director of the five-year U.S.A.I.D.-Tuskegee Institute 211(d) program entitled, "Comprehensive Planning for Rural Development." Dr. Howze has conducted extensive research on agricultural and economic development among the disadvantaged in the United States and has designed innovative methods for data processing and computer-based education.

Jones, Lewis, Ph.D. Columbia University. Professor of Sociology. Director, Rural Development Center.

Dr. Jones is a nationally-recognized authority in rural sociology and the

problems of development among the rural poor. He has conducted numerous research projects relating to development, focusing on such topics as land tenure systems, rural education medical practices, demography, agricultural systems, and sociopolitical organization and movements. Professor Jones has published over forty books, articles and reports related to his research activities. He is a board member of the Migrant Children's Fund, the National Committee on the Employment of Youth, the National Sharecropper's Fund, the Rural Advancement Fund, and the Study Group on an Institute for Applied Science and Social Change in a Rural Area of the National Academy of Sciences, among others. Dr. Jones has also participated in overseas activities as a member of the U.S.A.I.D.-Tuskegee agricultural research team.

Kitchens, John W., Ph.D. Vanderbilt University. Associate Professor of History.

Dr. Kitchens has conducted research in Colombia, Peru, Ecuador and Chile. His areas of specialization include race relations and intra-South American diplomatic relations. He has published a number of scholarly papers on these topics. Dr. Kitchens has been awarded a Fulbright Teaching Fellowship at the Universidad Mariano Galvez in Guatemala City for 1978-79. He will also be conducting research on the diplomatic and social history of Guatemala in the National Archives during this period.

Marable, Manning, Ph.D. University of Maryland. Associate Professor of Political Science. Head, Department of Political Science.

Dr. Marable has published a number of articles on Tuskegee's relations with Africa. He has also conducted research in England and France, and pursued undergraduate studies at

Earlham College in England, and the University of Nairobi, Kenya. He speaks Spanish, French and Swahili.

Newsom, Diane, M.A. Auburn University. Assistant Professor of History. Professor Newsom has conducted research in the U.S.S.R. in conjunction with the Research Center for the Study of Socialist Education, Kent State University. She has also studied in Pakistan, Mexico, Guatemala, England and France.

O'Sullivan, John, Ph.D. University of California-Los Angeles. Assistant Professor of History.

Dr. O'Sullivan has worked and researched in the Ivory Coast for four years. His initial involvement was as a Peace Corps volunteer during 1968-70, and in 1973-5 he returned to conduct dissertation research on changes in the social structure of the northern region. He has also conducted investigations in Senegal and Mali, and has visited numerous other African nations. He speaks both French and Malinke.

Schoepf, Brooke G., Ph.D. Columbia University. Associate Professor of Anthropology.

Dr. Schoepf is a specialist in international development and the social dynamics of health-care delivery systems. She served on the faculty of the National University of Zaire, Lubumbashi from 1974-78. The first two years of this service was as a member of the Rockefeller Foundation Field Staff and the latter two as a Fulbright Professor. She also served as a consultant to Zaire's Department of Agriculture and Rural Development. Dr. Schoepf taught at the University of Connecticut (1972-74) and Tufts University (1969-70), and has held research positions at New York University (1966-68, 1970-72). She has authored numerous publications and reports in her areas of specialization and translated (with Claire Jacobson) the English edition of Claude Lévi-Strauss's *Structural Anthropology*.

Shoukry, Kamal, Ph.D. University of Southern California. Associate Professor of Economics.

Dr. Shoukry is Egyptian and has traveled and conducted research in Europe, North Africa and the Middle East. He is fluent in English, French and Arabic.

Smith, James Edward, M.A. Howard University. Ph.D. candidate, Georgetown University. Assistant Professor of Economics.

Professor Smith is a co-author of *Economics Workbook* (The William C. Bowen Book Company). He has traveled in the Orient as a member of the armed forces and has a reading knowledge of French and Spanish.

Thangiah, Samuel G., Ph.D. State University of New York at Buffalo. Associate Professor of Economic.

Dr. Thangiah is a native of India and speaks Tamil and English. His research interests include the analysis of cost of living indexes. He has traveled in Europe and North America.

Vickers, William T., Ph.D. University of Florida. Assistant Professor of Anthropology, Department of Sociology.

Dr. Vickers is a specialist in the analysis of pre-industrial subsistence systems, and the social and cultural aspects of national development, particularly those aspects of national integration involving peasant and tribal peoples. He has conducted research on the ecological adaptations of the Siona-Secoia Indians of Ecuador's Amazonian lowlands with grants from the Doherty Foundation and the National Institute of Mental Health (1973-75). In 1971 he studied the economic patterns of an Otomi Indian community of highland Mexico, and in 1963-65 he served as a Peace Corps volunteer in rural community development programs in highland Ecuador. Professor Vickers has traveled extensively in Latin America and speaks Spanish and Portuguese. He has published a number of papers based on his research activities.

Wall, Paul T., Ph.D. University of Chicago. Associate Director, Carver Research Foundation. Director, Division of Behavioral Science Research. As Director of the Division of Behavioral Science Research, Dr. Wall has the responsibility of coordinating research activities in the social sciences at Tuskegee Institute. He is currently engaged in a U.S.A.I.D.-funded research project on the "Development and Testing of Methodologies and Instruments for Evaluating Community Education Programs." This project has a training component that will bring 15-20 practitioners from developing nations to Tuskegee Institute for study. Dr. Wall has conducted a number of research programs on the socio-cultural organization of educational institutions. He has travelled extensively in Europe, The Caribbean, and Japan.

Division of Humanities

Browne, Stanley M., M.A. Howard University. Assistant Professor of Philosophy.

Professor Browne served as a Peace Corps volunteer in Kenya from 1969-72, and has visited Tanzania, Ethiopia, Saudi Arabia, Greece, France and the Bahamas. He speaks Swahili and is a candidate for the Doctor of Philosophy degree from the University of Ottawa.

Curran, Thomas M., Ph.D. Fordham University. Professor of English.

Dr. Curran studied and taught in Japan for three years. He holds a Licentiate in Theology (S.T.L.) from Gregorian University, Rome, and has conducted research at Oxford University, England.

Kitchens, Lynne B., M.A. Vanderbilt University. Instructor of English and Spanish.

Ms. Kitchens has made a number of visits to Latin America for the purposes of research and teaching, including work in Mexico, Colombia, Ecuador, Peru and Chile. In 1969, she went to Ecuador to evaluate the Sister City Program between Johnson City, Tennessee and the City of Guaranda. In 1978 she will accompany her husband, Dr. John Kitchens, (Department of History) to Guatemala on a Fulbright Teaching Fellowship. She speaks

Spanish and Portuguese, and reads French and Italian.

Price, Connie C., Ph.D. Pennsylvania State University. Associate Professor of Philosophy.

Dr. Price has made many trips to the Scandinavian countries, including Sweden, Finland, Denmark and Norway. She has also visited Spain and France. Dr. Price speaks French, Swedish and Spanish.

Watson, Roy Meredith, M.A. University of Southern California, M.A. Howard University. Assistant Professor of Philosophy.

Mr. Watson is a native of Jamaica and is a candidate for the doctorate at the University of Southern California. He has toured the Caribbean on a number of occasions, and has assisted the government of Guyana on matters pertaining to student-aid programs. His foreign languages include Spanish, French and German.

Division of Natural Sciences

Chandra, Satish, Ph.D. Southern Methodist University. Associate Professor of Mathematics.

Dr. Chandra's work has focused on both the theoretical aspects of mathematics and the pragmatic aspects of mathematics education. He has publications on these topics in national and international journals. He has traveled extensively in India, Europe, Canada and Mexico, and speaks Hindi, Urdu, French and English.



Students involved in Horticultural Research.

Childs, Theodore F., Ed.D. Columbia University. Director, Developing Programs in the Health Related Professions; Educational Director, Program in Physical Therapy.

In 1956 Dr. Childs was awarded a travel fellowship by the National Foundation for Infantile Paralysis for the purpose of lecturing, giving demonstrations, and visiting rehabilitation centers in France, Italy, Greece, Israel, Kenya and Uganda. From 1959-65 he served as Secretary to the U.S. Committee for Rehabilitation in Africa; this organization is a subcommittee of Rehabilitation International which is a voluntary organization comprised of members from 62

nations, and which serves in a liaison capacity to the United Nations. Dr. Childs helped edit a brochure entitled, "Helping the Handicapped African." In 1971 he visited Zambia to assist in the planning of the first conference on rehabilitation held in Africa.

Gill, Piara S., Ph.D. Kansas State University. Professor of Chemistry.

Dr. Gill is a native of India and speaks Hindi, Punjabi, and Urdu in addition to English.

Koons, Lawrence F., Ph.D. Ohio State University. Professor of Chemistry. Head, Department of Chemistry.

Dr. Koons has extensive foreign experience in both teaching and research. He has taught at three Indian universities (Allahabad in 1965, Burdwan in 1966, and Lucknow in 1967) under the auspices of the Indian University Faculty Commission in cooperation with the National Science Foundation. He has traveled to France, Chile, the U.S.S.R., and New Zealand conducting research on the life of Robert Briffault, and has published an introduction to Briffault's *The Troubadours* (Indiana University Press, 1965). Dr. Koons has also visited England, Sri Lanka, Kenya, Uganda, Senegal, Zambia, and in 1974 he traveled to Costa Rica to study the comet Kohoutek. During the 1977-78 academic year he is serving as Visiting Professor at the University of Dakar, Senegal, on a Fulbright Teaching Fellowship. Dr. Koons has a conversational knowledge of French and speaks some Russian and German.

Kothari, I.K. Ph.D., University of California. Professor of Physics. Head, Department of Physics.

Dr. Kothari has conducted research on the history of science in ancient India, the productive utilization of polluted land using judicious combinations of plants and irrigation, and the mechanical properties of soils. He has lectured at Indian universities and is interested in the development and implementation of science curricula and teacher training programs in physics, physical science, earth science and biophysics. Professor Kothari speaks English, Hindi and Guajarati.

Ludwick, Adriane G., Ph.D. University of Illinois. Professor of Chemistry.

Dr. Ludwick has published in the areas of physical organic chemistry and has conducted research on insecticides. She speaks some German and Spanish.

Ludwick, Larry M., Ph.D. University of Illinois. Professor of Chemistry.

Dr. Ludwick conducted undergraduate studies at the University of Melbourne, Australia. He has expertise in curriculum planning and development for the instruction of chemistry and would be interested in serving as a consultant in that area.

Narang, Hira N., Ph.D. University of Delhi, India. Associate Professor of Mathematics.

Dr. Narang is a trilingual native of India, speaking Hindi, Urdu and English. He has visited a number of countries in Europe and North America. He received his M.S. in computer science at the University of Kentucky. Dr. Narang has published a number of papers on applied mathe-

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matics and computer science in national and international journals.

SCHOOL OF VETERINARY MEDICINE

Adams, Eugene W., D.V.M. *Kansas State University, Ph.D. Cornell University. Professor of Pathology, Associate Dean of School of Veterinary Medicine.*

Dr. Adams has considerable overseas experience as a consultant on livestock production, and has presented a number of papers at international conferences. From 1970-72 he served as Professor and Head of the Department of Pathology and Public Health in the Veterinary Medicine Faculty of Ahmadu Bello University, Zaria, Nigeria. In 1974 he visited South Africa (four homelands), Lesotho, Swaziland, Tanzania, Kenya, Ethiopia and Ghana as a livestock production consultant. He has presented scientific papers before the Caribbean Veterinary Medical Association in Guyana and the International Conference of Veterinary Pathologists in Stockholm, Sweden. Dr. Adams has a reading knowledge of French and German.

Bray, Edward T., D.V.M. *Tuskegee Institute, M.P.H. University of Michigan. Professor of Large Animal Medicine and Surgery. Extension Veterinarian.*

Dr. Bray conducted research on large ruminant production in Guyana and served as a consultant to that nation from 1968-76. He has contributed other consultative and research design activities in Trinidad-Tobago (1968, 1972), Ghana (1975), Tanzania (1975), the Republic of South Africa (1974), Lesotho (1974), Swaziland (1974), and Mali (1977). During 1975-76 he served as a member of the Animal Productivity Group in the National Research Council's World Food and Nutrition Study. Dr. Bray is a member of the Advisory Committee of the U.S.A.I.D.-Tuskegee Institute 211(d) project entitled, "Comprehensive Planning for Rural Development."

Lumsden, Winston F., D.V.M. *Tuskegee Institute, M.P.H. Harvard University. Assistant Professor of Veterinary Medicine and Surgery, Systems Analyst, and Coordinator of Programs.* Dr. Lumsden combines an unusual blend of skills in veterinary medicine, computer science, public health and education. As Veterinary Medical Education Systems Analyst he developed Saturday Morning's Medical-Surgical Grand Rounds and five other computer-based programs for professional growth and enrichment. He is Jamaican, and from 1953-63 served as Agribusiness Systems Analyst for the Ministry of Agriculture and Lands of Jamaica.

Padmore, Cuthbert, D.V.M., *Tuskegee Institute. Assistant Professor of Large Animal Medicine-Obstetrics and Surgery.*

Dr. Padmore has served as an extension consultant in the development of a small ruminant industry in

Grenada, West Indies (1970), and was a member of a four university consortium studying tropical ruminant livestock production in Guyana (1974). He has presented scientific papers on large animal medicine at the Biannual Caribbean Veterinary Conference in Trinidad (1974) and Guyana (1976).

Siddique, Irtaza H., D.V.M., Ph.D., *University of Minnesota. Professor of Veterinary Microbiology.*

Dr. Siddique's areas of special interest include bacterial infections and pathogenesis. He has authored over thirty scientific papers for national and international journals of veterinary medicine and microbiology. From 1950-59 he served as Veterinarian and District Livestock Officer for the Government of Uttar Pradesh, India, and in 1974-76 was External Examiner to the University of Nigeria, Nsukka. In 1973 he was the recipient of a World Health Organization travel fellowship and visited research laboratories in Argentina and Brazil. He has also traveled to England, the Netherlands, Switzerland, Spain, Germany, Italy, Thailand and Japan to discuss research-related activities. Dr. Siddique speaks English, Urdu and Hindi.

Williams, Raymond C., D.V.M., *Kansas State University, Ph.D. Cornell University. Professor of Veterinary Anatomy, Head, Department of Anatomy.*

From 1976-77, Dr. Williams served as External Examiner to the University of Ibadan, Nigeria. He is interested in participating in additional overseas projects in veterinary medicine as a consultant in his specialization of anatomy or in organizing curricula in new institutions.

Williams, T.S., D.V.M. *Kansas State University. Professor of Pathology and Parasitology.*

Dr. Williams has served as an educational consultant to Liberia under the auspices of U.S.A.I.D. (1965). He has also made professional visits to Nigeria, Sierra Leone, Guyana and Trinidad.

HUMAN RESOURCES DEVELOPMENT CENTER

Pinnock, Theodore J., Ph.D. *University of Wisconsin. Director, Human Resources Development Center.*

Dr. Pinnock is an expert on rural community development. As Director of the Human Resources Development Center at Tuskegee, he has initiated and administered a variety of outreach programs for rural Alabamians, including projects in agricultural extension, business development, production and marketing cooperatives for fruit and vegetable growers, adult education, leadership development, and the Southeast Alabama Self-Help Association (S.E.A.S.H.A.). Dr. Pinnock is a native Jamaican and has visited or served as a consultant on development matters in Senegal, Mali, Kenya, Swaziland, Israel, Haiti, the Bahamas, Liberia, Tanzania, Nigeria, Jamaica, and various nations of Europe. These activities have been conducted under the auspices of the Ford Foundation, the American Council on Education, and the Southern Development Foundation, among others.



The Jesup Agricultural Wagon was one of Carver's extension methods.

Befecadu, Joseph, Ph.D. *Oklahoma State University. Director, International Programs, Human Resources Development Center.*

Dr. Befecadu is a specialist in agribusiness education, educational administration and curriculum development. He currently serves as the director of a U.S.A.I.D. Tuskegee Institute Program that is developing and testing methods for the evaluation of community education programs in developing nations. Dr. Befecadu is Ethiopian and speaks English, French and Amharic. He has traveled extensively in Africa and Europe.

Blackwell, Velma L., Ph.D. *Florida State University. Vice President for Development Affairs.*

Dr. Blackwell formerly served as Associate Director of Tuskegee Institute's Office of Federal Relations in Washington, D.C. From 1974-76 she served as a consultant to U.S.A.I.D. and the Government of Jamaica. During this period she prepared reports on capital assistance for the Development Loan Committee and a plan of implementation for programs in continuing education. In 1975 she was a consultant to the Technical Council of National Resources and Economic Development of Haiti. Dr. Blackwell has studied in England and Scotland where she prepared a report entitled, "Adult Education for the Disadvantaged in the United Kingdom." She has a reading knowledge of French.

Brown, Philip W., M.Ed. *Tuskegee Institute. Specialist for Community Services, Human Resources Development Center.*

Mr. Brown has been active in the administration of a number of the outreach programs conducted by the Human Resources Development Center at Tuskegee. He has also participated in the U.S.A.I.D.-Tuskegee Institute educational development project for Liberia, in which he served as a teacher from 1964-67, and was a consultant in the U.S.A.I.D.-Tuskegee livestock management project for Guyana.

Carson, James E., Ph.D. *Ohio State University. Deputy Director, Human Resources Development Center. Associate Professor of Education.*

Dr. Carson is a specialist in adult basic education. He has authored handbooks and curriculum guides in this field, and has served numerous consultancies to training programs in health education, human relations, and staff development. As the Deputy Director of H.R.D.C. he is responsible for the daily management of the Center's activities and programs.

Henry, Arthur Issac, Ed.D. *University of Florida. Program Development Officer, Human Resources Development Center.*

Dr. Henry serves as the coordinator of all federal, state and privately funded programs in The Human Resources Development Center. He is Jamaican and has served as a faculty member, Head of the Department of Agricultural Education, and Acting Principal of the Jamaican School of Agriculture (1961-75). He is currently writing two texts of agricultural science for secondary schools for MacMillan Press.

Hopper, C.L., M.D. *University of Cincinnati. Vice President for Health Affairs; Director, John A. Andrew Clinics.*

Dr. Hopper served as a medical consultant under the auspices of the American Public Health Association to review and evaluate the State of Benue Plateau in central Nigeria as a site for a Development and Evaluation of Integrated Delivery Systems (DEIDS) project (1974). In 1977 he made reconnaissance visits to Senegal, Liberia, Ghana and Cameroon in connection with the establishment of a U.S.A.I.D. 211-d program in international health at Tuskegee Institute.

Hume, Olive Elaine, M.S.W. *Tulane University. Research Assistant, Human Resources Development Center International Programs.*

Ms. Hume has had extensive research experience as a research assistant, statistician and consultant with H.R.D.C., the Tuskegee Institute School of Veterinary Medicine, and the Department of Health, Education and Welfare, among other state and local agencies. At present she is working on a

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U.S.A.I.D.-funded project entitled, "Development and Testing of Methodologies and Instruments to Evaluate Community Education Programs."

Smith, Henry L., M.S.W., Howard University. Associate Director for International Relations, Office of Development Affairs.

Mr. Smith serves in Tuskegee's Office of Federal Relations in Washington, D.C. and assists in the coordination of a variety of domestic and international programs. He formerly served as Peace Corps Director in Uganda (1971-72), British Honduras (1969-71), and as Deputy Director in Jamaica (1967-69). From 1972-77 Mr. Smith served as a Community Development Officer with the Department of Housing and Urban Development (H.U.D.), and is currently on an Intergovernmental Personnel Assignment to Tuskegee from H.U.D.

SCHOOL OF EDUCATION

Archer, Chalmers Jr., M.S. Tuskegee Institute. Assistant to the Vice President, Foreign Student Admissions Advisor.

Mr. Archer's major responsibilities include collaborating with deans and department heads on the evaluation, admission and placement of international students at Tuskegee Institute.

Baskett, Glen Dale, Ph.D. University of Texas. Associate Professor of Psychology, School of Education.

Dr. Baskett's areas of expertise include social influence, change and control, personality theory, statistics, research methods, and computer applications in psychology. He has published scholarly papers on his research activities in leading psychological journals. In 1970 Dr. Baskett was Visiting Lecturer at Princeton University, and from 1970-74 he held research and teaching positions at the Georgia Institute of Technology.

Cottrell, Theophilus C., B.S. Tuskegee Institute. Staff, Department of Development Affairs.

From 1964-68 Mr. Cottrell served as an instructor, consultant, and administrative assistant in the U.S.A.I.D.-Tuskegee Institute Liberia Project in educational development.

Hardy, Raymond T., Ed.D. Auburn University. Director, Adult and Career Education, Department of Vocational, Technical and Adult Education.

Dr. Hardy is a specialist in vocational and adult education. He has served as

consultant to a number of state agencies and university programs in adult basic education, and in 1977 evaluated the language training program for Indo-Chinese Refugees at the Singer Career Development Center in Denver, Colorado. Dr. Hardy has had overseas experience as a military instructor and advisor in France and the Republic of South Vietnam.

Harris, Evans Howell, D. Ed. University of Oklahoma. Professor of Education.

Dr. Harris has had a wide range of administrative and research experiences in education. He has identified multi-ethnic textual materials for the public schools of Oklahoma and Texas (1966-68), developed a feasibility study for the consolidation of six school districts in Oklahoma (1967), designed programs to improve patient care at the Veteran's Hospital, Tuskegee (1974), and served as Project Director, Community and Economic Development Project for the Office of Economic Opportunity, Crawfordville, Georgia (1969-71).

Hawk, Richard S., Ed. D. Pennsylvania State University. Associate Professor of Education.

Dr. Hawk served in Okinawa, Japan and the Philippines as a member of the armed forces (1961-64). He has also traveled in the Caribbean, including visits to Haiti, St. Thomas, Puerto Rico and the Dominican Republic.

Headd, Pezrl W., Ed.D. Indiana University. Professor of Education.

Dr. Headd participated in the U.S.A.I.D.-Tuskegee Institute Liberia Project as an education advisor at the Kakaka Rural Teaching Training Institute (1964-68). As part of this service, she prepared a manual of audiovisual procedures for the teacher training institutes at Kakaka and Zorzor, and made a follow-up study of graduates of the institutes. Dr. Headd has a reading knowledge of French and Spanish.

McQueen, F.T., Ph.D. Ohio State University. Professor of Teacher Education.

Dr. McQueen participated in the U.S.A.I.D.-Tuskegee Institute Liberia Project as an advisor on educational matters (1962-69). He has also served as a consultant in the Ivory Coast (1968), and prepared a feasibility study on the Lesotho National Teacher Training College in conjunction with U.S.A.I.D. and the American Association of Colleges for Teacher Education.

SCHOOL OF ENGINEERING

Dybczak, Zbigniew W., Ph.D. University of Toronto. Dean, School of Engineering. Professor of Mechanical Engineering.

In 1968 Dean Dybczak served as a consultant on technical and engineer-

ing education in Zambia, Kenya and Tanzania under the auspices of the Ford Foundation. In 1971 he participated in a bilateral workshop in Kinshasa, Zaire as a member of a team from the National Academy of Science. Dean Dybczak speaks Polish, Russian, and some German and French.

Dillon, I.G., Ph.D. Illinois Institute of Technology. Professor of Mechanical Engineering.

Dr. Dillon's areas of specialization include chemical, mechanical and nuclear engineering. In 1972-73 he took a sabbatical leave to serve as Nuclear Chemical Engineer at Fontenay aux Roses, France. He speaks French.

Doreswamy, C.V., Dr. Eng. Technical University, Hannover, West Germany. Professor of Electrical Engineering.

Dr. Doreswamy is a specialist in electric power system engineering, extra high voltage transmission systems, high voltage technology, and electrical insulating materials. He has conducted advanced studies in West Germany as an academic exchange scholar (1958-62), and research and teaching in Australia (1968-70). He speaks English and German.

Erdey, Michael R.A., Ph.D. University of Leeds, England. Professor of Electrical Engineering.

Uhlig, C.A. Edward, Dr. Sc. Techn. Swiss Federal Institute of Technology, Zurich. Professor of Electrical Engineering.

Dr. Uhlig's areas of expertise include high voltage engineering, solar and wind energy utilization, electrogasdynamics, and electromagnetic machine design. He has served as Research Officer of the National Research Council of Canada (1954-60), and as a U.S.A.I.D. sponsored Visiting Professor to Electrobras of Brazil. Dr. Uhlig speaks English and German, and has a reading knowledge of French and Portuguese.

SCHOOL OF NURSING

Dell, Mary Ann Swope, R.N., B.S., M.N., Graduate degree in the Teaching of Medical-Surgical Nursing from Emory University. Instructor, School of Nursing.

Ms. Dell is presently engaged in doctoral studies at Auburn University. In addition to experience in academic education, she has prior experience including both clinical nursing and administration, the latter in inservice education.

Moffett, Sonja L., R.N., B.S.N., M.N. Emory University. Acting Assistant Dean, School of Nursing.

Ms. Moffett's clinical area is Maternal Child Health Nursing and her specialty is Obstetrics. She is certified by the American Red Cross as a Maternal Child Health Instructor and serves as a consultant on Sudden Infant Death Syndrome for the Southeastern United States. She has conducted several workshops and seminars in family planning, preparation for parenthood (adolescents & adults) and Sudden Infant Death Syndrome. She has functioned for the past fourteen years as a professional nurse and nurse educator on both the technical and professional levels. Her research activities have focused on Sudden Infant Death and Pica. Other areas of major interest are high risk mothers and infants and human sexuality.

Sams, Lauranne B., R.N., Ph.D. Indiana University. Dean, School of Nursing.

Dr. Sams' doctoral major in psychology with concentration in Human Growth and Development and Human Learning augments and enriches her clinical area of expertise in Maternal-Child Health and Obstetric Nursing. She has extensive background, clinical and consultative experience in maternity nursing, family planning, family development with emphasis on high risk populations, adolescent problems, human sexuality and mental health.

Her areas of Research involvement include community health services utilization and health outcomes, effect of anxiety and stress on health status and care, socioeconomic factors and family stability and effect of parental behavior on infant child development. She has provided consultation with regard to health problems and quality of life development as well as Maternal-Child Health to Liberia, Ethiopia, Pakistan and Jamaica. She translates French and German.

Tuskegee Institute

Tuskegee Institute, Alabama 36088



For Information Contact

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Tuskegee Institute, Alabama 36088
(205) 727-8501

DRAFT REPORT ON VISIT TO JAMAICA, JUNE 18 thru 25

PREAMBLE

The trip was made by Arthur Henry, Claude McGowan, and Hank Smith representing Tuskegee Institute, also Chris Hodges representing the A.I.D. Mission in Washington. The duration was roughly the working week (Monday - Friday). This report was drafted by McGowan and Henry, but the final report will reflect the input and concurrence of the other members of the team.

PURPOSE OF VISIT

Dr. Glenn Howze, Director of the 211 D Program, explained to the team before it left that the purpose of the visit was threefold:

1. To explore the possibilities of Tuskegee contracting for doing the extension component of the Integrated Rural Development Project involving the two water sheds at Pindars River and Two Meeting River.
2. To discuss the Institutes possible involvement in the Title XII (baseline study).
3. To see what other types of involvement the Institute might have with Jamaica through other A.I.D. funded projects. As Dr. Howze pointed out, a number of short term assistance could be given in an advisory and consultative manner at no cost to Jamaica.

ITINERARY

Monday, June 19th, a.m.:

Discussion on Pindars Valley/two meeting project with Ken Ellis (Rural Development Officer) and Peter Weisel (Economist) Fitz Bartley agricultural specialist all of the A.I.D. Mission in Jamaica; and Vivivan Rochester, Director of Extension Services and Henry Stennett (Project Director) from the Ministry of Agriculture.

Monday, June 19th, p.m.:

Discussion on Title XII (Baseline Study) with Ken Ellis and Ralph Jones, Education Officer of A.I.D.

Tuesday, June 20th:

Traveled to Allsides in the parish of Trelawny and observed one soil conservation demonstration plot.

Visited Christiana, the head office for the project.

Toured the Two-meeting watershed and exchanged views with both project field staff and a few farmers.

Slept in the Christiana area.

Wednesday, June 21st:

Toured the upper regions of the Pindar Valley area; (Crofts Hill, Kellits and McNie).

Had a most profitable discussion with Mr. C. McDonald, the Southern Divisional Supervisor of the Ministry of Agricultural under whose geographical province the Pindars Valley area falls.

Thursday, June 22nd:

Chris Hodges returned.

Other members of team had informal discussion with officers of Ministry of Agriculture and Education.

Friday, June 23rd:

Visited Ministry of Agriculture and had final session with Messers Rochester and Stennett.

OUTCOMES

A. Re the Rural Development Project

Two sorts or inputs are possible from the Institute - the one short term and the other long term.

With respect to the short term, it emerged from our discussion with the staff at AID and at the Ministry of Agriculture that it would be a boost to the project if two or three people could visit Jamaica sometime in August and spend 3-4 months and train the staff in several specific areas.

1. Extension Methods bearing in mind that this is a very intensive effort. Also it must be remembered that the field staff consists of two types of personnel--conservationists and crops specialists.
2. Farm Planning - Knowledge of soils and their capabilities essential also knowledge of agricultural economics. It might be that two persons (specialists in each field) would fit the bill if they team up perfectly.
3. Communication - It was explained that educational work was well advanced for the launching of the program but it was felt that among the officers a system of communication-information flow in one direction and data collection in the other would be vital to the success of the scheme.

N.B. Mr. Vivian Rochester the present Director of Extension indicated that he would be quitting his post at the

Ministry and that he would be available for employment to work on this particular project.

With respect to the long term input to the project, such persons may not be required until 1979. Tuskegee, in competition with other institutions, could contract with AID for one or more of the following persons who will work for 2-4 years:

- Horticulturalist
- Farming systems specialist
- Soil Conservation Engineer
- Agri Extension Advisor
- Marketing/Agro Industry Specialist
- Ag Credit/Farm Organizations Specialist
- Ag Prod Economist

For both the short and long term effort, it is desirable that the Institute staff reside at Christiana or nearby. Besides affording great contact with the local field staff it will help to minimize the problem of transportation.

B. Baseline Studies

Three elements go together to make the coordinated whole-education, agriculture and extension. Research is identified with each of them. The requirement here is that AID would like to find one institution to enter into a contractual arrangement to study the scope and function of all institutions in the island concerned with agricultural education. This would involve:

1. All-age schools
2. Secondary schools
3. Agricultural centers
4. The "Cuban School"

5. The Jamaica School of Agriculture
6. The University of the West Indies (Ag Faculty)

The effort will involve about 5 persons working for six months (30 man months) and at the end of the study the problems (as well as the strong points) of each institution should be very well documented and clear indication given as to the future role of each institution. This is a gigantic task as for one thing it has to cope with the vagaries of the politicians, the assertive roles of some institutions, and the dogma of some senior civil servants. In the end the final document will represent a line of action acceptable to the majority.

While AID wishes to contract with only one institution, it is not averse to see that institution subcontract with one or more institutions or agencies. In this connection it was suggested that the Institute check its contractual status with Bifad.

The baseline study is not likely to be operative until 1979.

C. Other AID Supported Projects

This was touched on in a general way. The people of the AID Mission in Jamaica expressed the view that they were glad to learn of Tuskegee's desire to be involved in other projects in Jamaica and promised to keep the Institute in active consideration for a variety of short term consultative inputs.

TUSKEGEE INSTITUTE
SCHOOL OF APPLIED SCIENCES
TUSKEGEE INSTITUTE, ALABAMA 36088

B. D. Mayberry, Dean

REPORT OF AN EXPLORATORY VISIT

TO

THE REPUBLIC OF THE GAMBIA

RE:

THE 211(d) RURAL DEVELOPMENT PROJECT

AND

SISTER CITIES INTERNATIONAL

Sponsored By

THE TUSKEGEE INSTITUTE/USAID 211(d) PROJECT GRANT

Reporting Period: December 12-18, 1977

Johnnie Ford
Peter Balogun
B. D. Mayberry

PREFACE

The visit to The Republic of The Gambia by the Tuskegee Team was a success of major proportion. The welcoming upon arrival and the receptivity throughout the visit were well beyond anything that could have been anticipated. The highlight came early when we were honored by a visit to His Excellency, Alhajie Sir Dawda Kereba Jawara President of The Republic of The Gambia. His greetings set the prestige and tone of the visit at a high pitch which lasted throughout the stay and departure. For this, we are most grateful.

We were particularly elated by the greetings and courtesies extended to us by The American Charge d'Affaires, Mr. Michael Wygant, and His staff. We were encouraged and gratified by the actions of the Embassy.

Enough cannot be said for the Management Committee of Banjul City Council, chaired by Mr. H. R. Monday, for time and effort which went into the planning for, and the execution of, the visit of the Tuskegee Team. We know that to say "Thank you" is inadequate. Accept it, however, from the depth of our hearts.

THE TUSKEGEE TEAM:

JOHNNIE FORD, Mayor,
The City of Tuskegee

PETER BALOGUN, Director
Macon County Community Action Committee

B. D. MAYBERRY, Dean
The School of Applied Sciences
Tuskegee Institute

FOREWORD

The central focus of the visit to The Gambia was an initial step essential for the implementation of the purposes of the Tuskegee Institute/AID Rural Development Project funded under Section 211(d) of the foreign aid legislation. In addition however, the visit was planned to coincide with the visit by Mayor Johnnie Ford, and Mr. Peter Balogun in connection with the Tuskegee-Banjul Sister Cities Program under AID sponsorship. This special scheduling was made for two reasons. In the first place, the success of the Sister Cities Program involving Tuskegee and Banjul is dependent in large measure upon involvement of the resources at Tuskegee Institute; and secondly, the proposed activities under the Sister Cities program are inseparable from those proposed under the Tuskegee Institute 2-1(d) project.

In view of the complexity of the concerns and observations during this visit, the report is written in four separate yet related divisions; namely:

- I. Introduction
- II. A Brief Profile of The Gambia
- III. Rural Development Program
- IV. Sister Cities Program

E. D. MAYBERRY, Dean
School of Applied Sciences
Tuskegee Institute

I. INTRODUCTION

On December 12, 1977 Mayor Johnnie Ford and I departed New York via Pan Am for a very pleasant overnight ride to Dakkar, Senagal in West Africa. There we were joined by Mr. Peter Balogun of the Macon County Community Action Agency and the three (3) of us boarded Ghana Airways for the thirty minute ride to Banjul Capital of the Gambia, where we received a most hearty welcome.

Among those in the welcoming party which met the Tuskegee Team at the airport were:

1. Mr. H. R. Monday, Chairman
City Council Management Committee
2. Mr. Michael Wygant, Charge d'Affairs
The American Embassy
3. Mr. D. T. Davies, MBE, J.P.
4. Mr. M. A. Secka, B E M
5. Mr. Damphar, M M C
6. Mr. M. I. Jallow, J. P., Town Clerk
7. Miss V. R. Jones, Executive Officer
8. Alhajie Sompso Ceesay

The high of welcome activities at the airport was a presentation by the National Cultural group of Gambia. This included several dance and musical selections.

Following the several selections by the Cultural group, we gathered in the VIP Room at the airport for refreshments, greetings, and remarks by

officials in the welcoming party. We were then taken to the Adonis Hotel in Banjul for registration and check-in for a few minutes.

At 11:30 we visited the American Embassy for an official welcome by Mr. Wygant, Charge d'Affairs, and his staff. This was followed at 12:00 noon by a visit with His Excellency The President, Alhajie Sir Dawda Kereba Jawara. He extended a most cordial welcome and discussed briefly Gambia's five year development plan. Further, he expressed hope that Tuskegee would help in the implementation of these plans.

The courtesies continued throughout the week mainly in the form of formal luncheons, receptions and dinners. The mornings were devoted to official visits and discussions relative to the purposes of our visit (The Rural Development Program and the Sister Cities Agreement).

The highlight of the tours was a visit on Saturday, December 17th to Jufure, the village from which "Roots" sprang. This tour was made by boat on the Gambia River. The boat ride carried us by way of James Island and Fort Bullen. At Jufure, we visited and made pictures with members of the seventh generation of the Kinte family from which Alex Haley descended. We returned to Banjul by roadway which gave us the opportunity to see much of the countryside and farming activities. This, of course, consisted mainly of peanut growing and rice farming.

My portion of the visit to Gambia was concluded on the evening of December 17th with a dinner sponsored by the Chairman of the Banjul City Council Management Committee in honor of the Tuskegee Team.

Mayor Johnnie Ford was awarded souvenirs, a resolution and gifts by the City Council.

It was a real honor to be escorted to the airport on the 18th by the Chairman of the Management Committee, several members of his Council and my colleagues on the Tuskegee Team.

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Tuskegee Institute

TUSKEGEE INSTITUTE
ALABAMA, 36088

SCHOOL OF VETERINARY MEDICINE
DEPARTMENT OF MEDICINE
SURGERY AND CLINICS

REPORT OF VISIT TO GUYANA AND TRINIDAD-TOBAGO

by

Edward T. Braye - March 21-26, 1978

Dr. Edward T. Braye, Chairman, Department of Large Animal Medicine and Surgery, School of Veterinary Medicine Tuskegee Institute visited Guyana during the period March 21-24 and Trinidad-Tobago, March 25-26. The purpose of these visits was to explore the possibilities of having Tuskegee Institute involve its 211d program, "Comprehensive planning for Rural Development", in some aspects of planning or ongoing development and/or research in these respective countries. The visitor obtained a very favorable response and encouragement in the Guyana phase of the trip. The Trinidad-Tobago phase was not totally discouraging, but the scope of programs in operation there did not seem to thoroughly blend into a total Tuskegee package.

Chronology of Report

March 21, 1978 - Departed Tuskegee - 6:50 A.M. - Arrived Timehri Airport - Guyana via Surinam Airways - 11:05 P.M. - Lodging at Tower Hotel - downtown Georgetown.

March 22, 1978 - 10:00 A.M. - Meeting with Mr. George Eason, Agricultural Officer USAID - Guyana and Mr. Henry Braddock - Program Officer - USAID Guyana.

The purpose of the trip and features of the 211d grant were explained. This procedure was followed at each subsequent meeting with officials of government and academic personnel.

Mr. Eason indicated that he was scheduled to leave Guyana several months ago, but had been reassigned for a temporary period. Mr. Braddock had been assigned in the country for seven weeks. However, both indicated that there were phases of the Guyana setting where Tuskegee expertise might be readily accepted. This would be especially true if the studies, research, and institutional building didn't really involve "Costs to the Government of Guyana". They felt that there was a distinct deficit of trained management-type personnel in Guyana and that an unfortunate "brain drain" continues to

have its effect on student being educated abroad. In that light, any "in-country" program would likely be well received and produce a mutual and positive effect for Guyana and Tuskegee Institute.

Mr. Eason commented on two locations where Tuskegee input could be very useful: The first setting involves the Moblissa Development Scheme for resettlement and dairy development. This project has been underway for approximately four years. The goal is to locate 25-50 families on forty acre farms and ultimately develop the cleared lands for pasture, farming and dairying. This undertaking is being directed by the Livestock Development Group under the leadership of Dr. Peter Fernandes. One advantage seen in a study and working relationship here would be in the captivity of the population and its small community base. The second program involves a very comprehensive scheme of development in the Mahaica-Mahaicony-Abary areas (MMA). The Government of Guyana is undertaking a grant step toward controlling the ravages of flood waters in the mentioned areas. Much of this scheme will center on building a system of dams and irrigation channels for water control. However, the overall scope will include and involve movement of people, re-settlement of lands, new lands management, determination of profitable farm sizes, and work on many other parameters for which the Government needs help and assistance. It was conceived that this program could well supply challenges for all the disciplines described in the Tuskegee grant.

A brief discussion on the role of small ruminants in the Guyana economy followed. It was felt that these species might offer some alternatives to cattle in selected areas. Mr. Eason suggested that this might be a good subject to raise with Dr. Fernandes, since there had been some interest on the part of the Prime Minister in promoting the water Buffalo.

An attempt was made by Mr. Eason to arrange for Dr. Braye to meet with the Mission Director. Her schedule was quite tight for the day and it was suggested that an appointment might be arranged later. Meanwhile, Dr. Braye would contact Dr. McKenzie, Principal Veterinary Officer, and arrange future meetings with representatives of GOG.

March 22, 1978 - 2:00 P.M. - Meeting with REPAHA Group- Dr. Allan Fox, Principal; Dr. Augusto Villenas, Project Manager; Dr. David Steel, Lecturer.

Regional Educational Programme for Animal Health Assistants (REPAHA) is a cooperative effort among UNDP, PAHO, CIDA (Canadian International Development Agency), FAO, and sixteen (16) Caribbean Governments. The program began in 1975 and basically functions to develop and provide animal health assistants for the participating countries. The construction of permanent structures for the program in Guyana was begun in March 1977. Currently 33-35 students are selected each year for the two-year program.

Dr. Fox has recently replaced Dr. Fernandes as principal of the school. He indicated that the major weakness in the program is in the area of Animal Husbandry. A question was raised on whether Tuskegee Institute could become involved in supplementing some teaching efforts of the program, especially in the subject area of Animal Husbandry. Some aspects of such an effort could be explored within the framework of the 211d grant, if Tuskegee became involved in Guyana. The REPAHA group expressed concern over what will happen in 1980 when the PAHO support segment expires. It is hoped that by that time a trained

staff will be on hand. However, again a probing plea for assistance was made.

March 22, 1978 - 3:30 P.M. - Meeting with Dr. Peter Fernandes - Executive Chairman - Livestock Development Company.

After reviewing the Tuskegee 211d grant with Dr. Fernandes, discussion was initiated on the ways in which Tuskegee study and research might become involved in Guyana. Since, I knew much of the Moblissa scheme, Dr. Fernandes was quick to say that area provided a challenge for some aspects of the grant. However, he thought that the potential of the MMA (Mahaica-Mahaicony-Abary) Water Control Scheme seemed to encompass much more in terms of a total grant involvement. He suggested that since I would be meeting later with Mr. Ben Carter, a more in-depth appreciation of the plan can be obtained. This area is along the east coast and it will ultimately include new grazing areas for cattle and other livestock as well as sites for crop farming. Resettlement will be a major component. Dr. Fernandes indicated that Major Neville Henry is in charge of Agriculture Production for the Guyana Defense Force and his initial target projection of cattle for the new area is 6000 head. Major Henry had finished the 211d AID Tuskegee Ranch Manager Program and, in December 77, completed a period of study at Tuskegee leading to a degree in Animal Science. Later that evening I met with Major Henry and gained further knowledge of his production program.

Dr. Fernandes commented on the possibilities of new settlements and livestock development in the Northwest part of Guyana. He appraised me of a group of Americans in this region who are known under the title of "Peoples Temple". This group, possibly 800-1000 individuals is engaged in land clearing and farming. It is a Multiracial California-based group headed by Bishop Jones. His information on the sect seemed to indicate that they are a reasonably productive group. The GOG has not had to provide them with technical or advisory support.

A discussion on the role of "new" breeds of cattle for Guyana followed. Dr. Fernandes commented on the interest of Prime Minister Burnham in possibly using the Water Buffalo in a breeding scheme, somewhat similar to the Beef-alyso breed of Trinidad-Tobago. I raised a question with him on how he viewed the Beefalo as a potential breed for Guyana, since a group had approached Tuskegee Institute on its merits for the tropics. He indicated that they would likely welcome new research groups oriented toward livestock production in Guyana.

March 23, 1978 - 9:00 A.M. - Meeting with Mr. Ben Carter, General Manager, Mahaica-Mahaicony-Abary Agriculture Development Authority.

Mr. Carter was Principal Agriculture Officer during our previous 211d Program, and this meeting got off to an excellent start by reviewing some of our work in connection with the Livestock Consortium of the 1972-1977 period.

The M-M-A Scheme (Mahaica-Mahaicony-Abary) is a vast undertaking which will be developed over a period of ten (10) years. It has been currently funded for 5½ years by IDP at approximately 72.6 million dollars - US.

The plan calls for promoting agriculture development largely through the following: 1. water control; 2. agriculture education; 3. institutional strengthening. The first phase (5 year period) is being developed. It involves roughly 115,000 acres of land and 3,800 farmers. The completed project is to ultimately involve 423,000 acres. It is expected that ten (10) major Coop groups will be organized representing 1000 families.

A series of dams and drainage canals will make it possible to increase the number of acres available for livestock and crop farming. This has been a perennial area of major flooding and livestock drownings. Much of the land remains under water for long periods of time during the wet seasons. The dams will provide a water conservatory, which under proper management will provide water for crop irrigations and the villages when needed.

A rural training center has been proposed for MARDS (Mahaica-Mahaicony-Abary Rice Development Scheme)

Mr. Carter indicated that the MMA Scheme can be looked upon as a much smaller version of TVA. He further stated that there will be complete autonomy with the Authority to seek assistance in responding to its needs. This statement was viewed as a very encouraging remark.

Mr. Carter produced a map of the entire scheme and pointed out how they have tentatively planned for the land to be allocated. A basic unknown at this time appears to be related to the size of an economical farm unit. They are using the 1952 agriculture data as a starting base. Mr. Carter expressed a hope that possibly a group such as ours might be of great assistance in helping them determine the ideal farm size and assist in developing the training center, as well as help them in their extension efforts. Another point of concern was related to the uncertainties of how the people will react to a plan of site relocation. The sociological factors surrounding this aspect of the program seem to provide a rather inviting bit of research and study for the Tuskegee team. Mr. Carter viewed this as a valuable item for any future planning, especially since they are now beginning to organize for the second 5 year phase.

March 23, 1978 - 11:00 A.M. - Meeting with Mr. Arlington Chesney, Principal Agriculture Officer and Dr. Patrick McKenzie, Principal Veterinary Officer.

This meeting was setup to accomplish two purposes:

1. To review the current 211d grant
2. To review former Tuskegee involvement in training programs for Guyanese and ascertain feedback on the performances of Tuskegee trained personnel working in the Ministry of Agriculture.

Both Mr. Chesney and Dr. McKenzie have been very pleased with calibre of the students returning to Guyana. However, they did express grave concern about the number of veterinary graduates who fail to return upon completing their programs. They asked that a mechanism of notification

to the Ministry be forwarded at least six months prior to a student's graduation. This is the lead time that will be necessary to insure that all facets for "return" are properly formulated.

The discussion on the 211d grant was entirely informal and the Guyanese expressed their views of how they saw faculty of Tuskegee Institute fitting into planned or ongoing projects and/or research in Guyana. Mr. Chesney clearly pointed out that they have a vital need in the area of Extension Methodology. Tuskegee involvement here could actually complement the study previously done under the former 211d part. Dr. McKenzie indicated that in his service there are basic weaknesses in many of the perinatal diseases of livestock, especially pigs. He also expressed hope that something could be done in the area of continuing education. Very little research is being done on indigenous diseases of livestock.

March 23, 1978 - 1:30 P.M. - Meeting with Dr. Freddy Downer, Coordinator, Guyana School of Agriculture.

Dr. Downer had recently visited England to tour and obtain first-hand knowledge of the organization and training methods associated with their Schools of Agriculture. He presented me with a copy of his report of this trip. I also obtained a copy of his recent report on the basis for Agriculture Education and Extension Training in Guyana.

March 23, 1978 - 2:00 P.M. - Meeting with Mr. Winslow Davidson, Principal - Guyana School of Agriculture.

Mr. Davidson indicated that they now have 158 students enrolled in the GSA. Agriculture has been the backbone of Guyana economy and accordingly the GSA should continue to be strengthened and upgraded. The Principal was pleased with some of the progress being made. However, he wished for more audio-visual materials. He indicated that there is the need to provide training in meat cutting and food processing, especially canning. Some discussion was generated on the subject of Agriculture Extension and Extension Education provided by the GSA. Mr. Davidson indicated that these areas are now being pursued but they have merely scratched the surface.

March 23, 1978 - 3:30 P.M. - Meeting with Honorable Minister of Agriculture, Mr. Garvin Kennard, Mr. A. Chesney, PAO; and Dr. Patrick McKenzie, PVO.

Minister Kennard welcomed the idea of a possible new research effort on the part of Tuskegee in Guyana. He encouraged an effort to try and persuade others to think of Guyana as "the place". He indicated that Guyana has plenty of problems just waiting to be solved and within the framework of the 211d grant, it offers a rich arena for faculty to gain experience with the problems of a developing country. He raised the following questions as a basic unknowns for which they would like to have answer:

1. What are the impediments in relocating people?
2. What is an economical farm size?
3. Is the Ministry structured to support the farmer?
4. How do you get people into the decision making process?
5. How can we improve post harvest facilities?
6. How do you get a farmer to become more productive?

This meeting closed on a very cheerful note and it concluded my official talks with members of the Government of Guyana. I later made a courtesy call with Dr. McKenzie, to the home of Honorable Ptolemy Reid, Deputy Prime Minister. However, Dr. Reid was away and we spent the time there in conversation with Mrs. Reid.

March 25, 1978 - 1:00 P.M. - Departure Timehri Airport via PAA
1:05 Arrival Piarco Airport Trinidad-Tobago

Dr. Leonard V. Butcher, Chief, Veterinary Public Health Officer, met me at the airport. He indicated the difficulties I would have in getting to see the key people in disciplines related to our 211d grant, because of the Easter holiday period. Considering that most individuals would not be available before Wednesday, and it was only Saturday, I asked to be placed on stand-by passage to the USA for Sunday.

Dr. Latcher had arranged a meeting with Dr. Vincent Moe, Chief Veterinary Officer and Dr. John Ferdinand, Deputy Veterinary Public Health Officer. I learned through this meeting that the Caribbean Agricultural Research and Development Institute (CARDI) has largely been doing work on crops and very little direct work on animals and animal health problems. Recently, there had been a change in the Administration of this Center and perhaps things were a bit unsettled. It was suggested that a visit to the Center at a later date might prove more fruitful.

Later, I spent a few hours with some recent graduates of Tuskegee who are employed in the Ministry of Agriculture Veterinary Services. Dr. Elmo Bridgewater 77; Dr. Winston Harper 76; and Dr. Carlos Paul 72. Dr. Butcher is the former Chief Veterinary Officer and a classmate of mine.

March 26, 1978 - Departure

Trip Report

Name: Chris Hodges

Title: Economist, DSB/AGR/ESP

Date Submitted: May 20, 1978

The primary objective of this trip was to arrange in-country activities of Tuskegee Institute under a 211(d) grant for agricultural development. These activities were to be supportive of an on-going Mission project or plans for a future Mission activity. Arrangements for placing a Tuskegee team in-country were to be made through Mission personnel and government counterparts. A secondary objective of the trip was to discuss the value and feasibility of activities proposed in a DSB/AGR/ESP PID concerned with food security planning.

The travelling team consisted of Dr. Glenn Howza (Tuskegee Rural Sociologist), Dr. Suchet Louies (Tuskegee Animal Scientist) and myself. Our itinerary was as follows:

May 2 - May 4	Senegal (USAID)
May 5 - May 8	Gambia (USAID)
May 8 - May 11	Mali (USAID)
May 11	Abidjan, Ivory Coast (REDSO)

Tuskegee's 211(d) centers on the areas of agricultural economics and the social sciences with some limited additional funds for advisory services from Tuskegee's very capable extension service, School of Veterinary Medicine and School of Applied Sciences. Approximately 60% of the grant is for education and training of Tuskegee personnel, curriculum modification, hiring new faculty and expanding the information capacity in the area of agricultural and rural development.

The remaining 40% provides funds for research and advisory activities which will give Tuskegee valuable international experiences and links with USAID Missions and LDC governments. The specific areas of involvement under the 211(d) are listed as farming systems, community development, new lands management and marketing with the first two being preeminent.

This trip to West Africa was part of an overall DSB/AGR/ESP strategy for linking Tuskegee with LDC organizations and USAID Missions. This strategy is consistent with Handbook 13's Chapter 2 which states that Central Bureaus shall:

" develop plans for 211(d) grants on the basis of priority problem identification in the DAP's and FBS's (and other AID programming documents) and identify skills in the grantee institutions that can be appropriately utilized for current and projected LDC and Mission program needs....."

The Handbook goes on to say that Field Missions are urged to facilitate linkages between the grantee and host-country institutions and be mindful of the grantee when preparing to contract with a U.S. educational institution for an activity involving sector analysis, problem-solving, project design and evaluation and research in a key problem area.

As stated in the Handbook, DSB/AGR/ESP consulted DAP's, ABS's and CP's in January 1978 then sought out desk officers and project officers in the Regional Bureaus. These activities provided good information on particular projects to which Tuskegee might contribute. After reading Project Papers and meeting many Regional Bureau people, a letter and information on Tuskegee were sent to six USAID Missions: Mali, Senegal, The Gambia, Jamaica, Guyana and Yemen. Only Yemen responded in a negative manner while Mali and Jamaica responded positively with the remaining three expressing a need for further communication. This trip sought to further explore the proposals made in the letters and gain a better understanding of the Missions' programs.

Our discussions with AID/Senegal centered on two regional rural development projects in the Casamance and Bakel areas. Specific activities mentioned were a baseline study in Casamance and monitoring of the sociological impact of new technologies in Bakel. Both the Mission Director (Norman Schoonover) and the Program Officer (Gene Chiavaroli) were very helpful in deriving these activities and were generally supportive of Tuskegee's 211(d) initiatives.

Our discussions with AID/Gambia were somewhat less productive. This Mission consists of one man who is forced to delegate many responsibilities to REDSO/WA. As a result, he was unable to make any commitments regarding project activities. The AID officer (Douglas Broome) suggested that Tuskegee might undertake a study of crop diversification or analyze the informal marketing of grain in The Gambia. Our specific objective in The Gambia was to place a man or two on the project design team for the Mixed Farming and Resource Management project plus conduct two of the socio-economic studies which are proposed in the PID. Because REDSO/WA was responsible for the design of this project, Broome was unable to make any commitments.

Our discussions with AID/Mali were both substantive and determinative. Before our arrival in Mali, I discussed possible activities with the Agricultural Officer (Quincy Benboe) while he was in Washington and the Mission gave our proposals serious consideration. Therefore, upon our arrival the Mission was prepared to speak substantively about utilizing Tuskegee talents

in the Agricultural Officers Training project or the Action Riz-Sorgho project. The first project seeks to improve two of Mali's three agricultural officer training schools in order to graduate up to 160 well-trained, polyvalent junior-level agricultural technicians per year. The second project seeks to improve rice and sorghum production in the Gao area through improved varieties and the use of insubmersible dikes. We agreed that the agricultural officer training activity was more consistent with the 211(d)'s socio-economic emphasis and Tuskegee's technical expertise in extension. During the discussions Tuskegee agreed to provide 24 PM of professional expertise plus graduate students in order to profile Malian extension agents and study their training, their clients and their roles in the rural community. These activities will be centered in two regions where extension agents are used in AID projects. Tuskegee's work will be used by the Agricultural Officer Training project personnel, the AID Mission and the Malian Government. Needless to say, we were very pleased with our activities in Mali and the cooperation we received from Mr. Levin (Mission Director), Mr. Golden (Program Officer) and Mr. Benboe. Besides meeting with Mission staff, we also met several government officials dealing with extension and visited one of the agricultural officer training schools.

Our discussions with REDSO/WA produced nothing substantive for The Gambia project design team had already been chosen and the project studies were to be executed by REDSO/WA. We did learn of some upcoming design activities and sector reviews in which Tuskegee might participate.

During the trip, I had the opportunity to discuss food security matters with Mission staff members. In each country visited, the government has a great interest in building food security stocks. The Government of Senegal desires a government buffer stock of 50,000 tons while the Government of Mali desires a 70,000 ton stock. There is also great concern about wide fluctuations in grain prices and the high cost of grain imports. In response to these needs, the Senegal Mission brought in a KSU team in order to assess Senegal's grain storage situation and is currently supporting a project to build 30,000 MT of storage capacity. The Mission is interested in an agricultural sector analysis which will investigate some aspects of Senegal's storage and pricing policies.

In Mali, the Mission is currently studying on-farm grain storage and how these stocks relate to food security. Also, the Mission and AFR/SFWA supported an FAO analysis of Malian food grain marketing. This study was very critical of Mali's stock building program and AFR/SFWA recommended that the "U.S. must develop a policy alternative to propose as a substitute for present policies."

Even though 211(d)'s exist in a somewhat adverse milieu, this team achieved its primary trip objectives for three fundamental reasons. First, the support of Africa Bureau and the Missions was strong. Second, this 211(d) grant, unlike many past 211(d) grants, seeks to involve the grantees in mainstream AID activities and build a meaningful link with the offices and Missions of AID. This approach provides meaningful support to Mission which in turn support the 211(d). Third, the Tuskegee representatives on the trip showed great understanding of AID's inner-workings and they used this insight to relate their 211(d) to the needs and interests of AID. Under the management of Dr. Glenn Howze and the Tuskegee Advisory Committee, this 211(d) is moving in direction which will not only improve Tuskegee's own resources for undertaking international work, but will also establish Tuskegee in the mainstream of AID activities.

DETAILED WORK PLAN FOR 211-D PROJECT - TUSKEGEE INSTITUTE

I. BACKGROUND

Tuskegee Institute, through almost 100 years of developing solutions to human and community resource development problems among disadvantaged people, recognizes the need for the involvement of "the people to be served" in the planning and in program implementation. While it has been determined that the need for involvement is paramount, it is recognized that adequate expertise among local citizens in these situations is usually nonexistent. To bridge this all important gap, there is an urgent need for a cadre of professionals in this country and in LDC's capable of providing technical assistance in the broad areas of human resource and community development with emphasis on such specialty areas as (1) improving income distribution, (2) reducing underemployment, (3) raising productivity and levels of living among the rural and urban poor, and (4) improving the general welfare.

Tuskegee Institute has a very long history of successful involvement in helping limited resource people. In the early years of Tuskegee Institute, this group constituted its only clientele. Through this involvement, Tuskegee acquired a commitment to serve the disadvantaged. Today this commitment stands as a major focus of this institution. Through this functional commitment, Tuskegee has amassed unusual expertise in dealing with the problems of the poor. This expertise has been acquired, not only in the United States, but also in many foreign countries in South America, the Carribean, West Africa and Asia. Thus, historically, Tuskegee Institute has been involved in, and is committed to Rural Development.

It is significant to note the parallelism which exists between the priorities of AID and the comprehensive (educational, research and extension) objectives of Tuskegee Institute. Both by design and by demand, Tuskegee Institute's objectives have concentrated on the human resource and community development needs of disadvantaged people of the deep South. Subsequently, Tuskegee's influence was extended first to the nation, and then, to the developing nations of the universe.

Agency priorities are now focused generally on programs aimed at a predominantly rural target group and in the key areas of food production, nutrition, population, health, education and human resources. Mission requests for technical assistance accordingly have focused on these areas of concern as well.

The focus of Tuskegee's grant - Comprehensive Planning for Rural Development - meshes well with current and future opportunities and demand within the Agency. Recognizing that (1) the vast majority of people in the LDC's are involved in subsistence and/or small scale agriculture, and (2) that one of the major problems in development efforts in LDC's is the development of methodologies for the transference of appropriate technology to poorly-educated traditional producers in varying social and cultural contexts. The major thrust of the 211(d) grant is in the areas of agricultural economics, economics and the social sciences. Four sub-areas of Comprehensive Planning for Rural Development will be emphasized by Tuskegee: farming systems, community organization, marketing, and new lands development.

The project emphasizes a multi-disciplinary approach to rural development problems through the involvement of appropriate units on the Tuskegee Campus including (1) Agricultural Economics and Economics, (2) rural Sociology /Anthropology, (3) Extension (H.R.D.C.), (4) Agriculture and (5) Veterinary Medicine. In general, the grant is being used for developing programmatic capabilities required by AID including project identification, design, analysis, implementation and evaluation.

II. PURPOSE, OBJECTIVES AND ACTIVITIES

The purpose of this grant is to develop Tuskegee Institute's responsive capability and multidisciplinary capacity to assist LDC's in the general area of Comprehensive Planning for Rural Development emphasizing farm systems, marketing, community organization and new lands development. The 211-d grant will enable Tuskegee Institute to provide technical assistance to LDC's with an emphasis on technology and technology transfer for small-scale agriculture recognizing that (1) the vast majority of people in the LDC's are involved in subsistence and/or small scale agriculture, and (2) that one of the major deterrents to development efforts in LDC's is the development of appropriate methodologies for the transference of technology to poorly educated traditional producers in varying social and cultural contexts, the major thrust of the project will be a multidisciplinary social science approach involving the disciplines of economics, agricultural economics, rural sociology, anthropology and extension. Where appropriate, the grant will also involve personnel from agriculture, animal science, veterinary medicine and other technical areas.

In order to achieve an enhanced capability in the area of Comprehensive Planning for Rural Development, the grant will focus on five activities/outputs: research (expanded knowledge base), Education and Training, Advisory and Consultation Services, the Development of Linkages and Networks, and Increasing the Institute's Information Capacity. These activities are designed to prepare the Institute and its personnel to be able to respond to the Agency's and others needs in the broad areas of project identification, design, analysis, implementation and evaluation.

III. MAJOR OBJECTIVES/OUTPUTS

The expected outputs from the 211-d grant can be grouped into five categories:

A. Research (Expanded Knowledge Base)

1. General Literature reviews and consultation with recognized experts on selected topics.
2. Development and execution of selected research projects in selected LDC's.

B. Education and Training

1. Support for graduate and undergraduate students in academic programs related to rural development and international agriculture.
2. Workshops and Seminars
3. Curriculum modifications designed to improve Tuskegee Institute's offerings in International Rural Development.
4. Language training for faculty

C. Advisory and Consultation Services

1. Create and maintain a handbook detailing Tuskegee Institute's experience and interest in international programs and providing detailed resumes of individual faculty members interests and experience in international work.

2. Provide release time for faculty to respond to requests from USAID and other donors for advisory services.

D. Linkages and Networks

1. Strengthen and develop new ties with 1890 and other minority institutions and firms involved in international work.
2. Strengthen and develop new ties with 1862 and other U.S. institutions and firms doing similar work in LDC's.
3. Develop linkages with USAID regional bureaus and missions.
4. Develop linkages with LDC's and other donors.

E. Information Capacity

1. Acquisition of books, journals and other library materials.
2. Acquisition of computer models and data bases.
3. Publication of seminar and research reports.

IV. WORK PLAN AND ANTICIPATED EXPENDITURES

III-A. Research

The objectives of Tuskegee's research activities will be to:

1. Increase the Institute's capability for doing applied research relating to comprehensive planning for rural development.
2. Provide faculty and students with significant overseas experience working in LDC's.
3. Generate research findings and other information which will be useful in development efforts.

The research effort will be carried out by interdisciplinary teams of social science faculty members and graduate students. Where appropriate, the teams will be assisted by technical personnel from agriculture, animal science, veterinary medicine and other technical fields.

It is anticipated that during the grant's five-year period each of the four major subtopics will receive research attention. However, since each of the four subtopics are substantial areas for research, it is possible that the bulk of the research effort might be centered on only one or two areas.

1. Farming Systems

a. Description

The major activity will consist of designing and conducting a state-of-the-art research project focusing on the parameters and dynamics of a LDC regional farming system with the purpose of identifying the structural characteristics of the system, including the significant social, cultural, and economic factors involved. Following the collection and analysis of the data the research team will design a plan for regional agricultural development for the site studied, placing emphasis on compatibility with local values, practices, and building upon existing structures where feasible and desirable.

This project will be conducted by an interdisciplinary team consisting of one agricultural economist, one agricultural scientist, one rural sociologist, one anthropologist, one veterinarian, and three graduate students. The 211 (d) grant Program Director will designate one team member to be Farming Systems Research Coordinator, and this individual will assume planning, liaison, and administrative duties for the research under the supervision of the Program Director.

b. TIME SCHEDULE - NARRATIVE

Objective: Research/Farming Systems

TIME	ACTIVITY	COMMENTS
1. October 77	Selection of Research Coordinator	
2. November 77	Identify Geographical Area for Research	Need help from Aid
3. December 77- Jan. 78	Preliminary Survey of Potential Research Sites	Either USAID/W or Field Visits
4. February 78	Selection of Research Site	
5. March - April 78	On Campus Research Planning	Development of Research Design.
6. May-August 78	On-Site Data Collection	
7. September-Dec. 78	Data Analysis	
8. January 79	Report of Farming System	

c. Outputs

The outputs of this project will be the establishment of linkages with LDC's, AID missions, increased faculty expertise in interdisciplinary research, exposure to multiple methodologies for research and approaches to development planning for LDC's, field training for graduate students, exercise in regional planning, enhanced capability for consultation, and the generation of new knowledge in the field of agricultural development.

The end-of-work status indicators will be the completion of reports, publications of manuscripts resulting from the research, and the completion of graduate student thesis.

d. Personnel

<u>STAFF</u>	<u>Man Months</u>
1. Dr. William Vickers-Anthropology	4
2. Dr. Glenn Howze-Rural Sociology	4
3. Dr. Edward T. Braye-Veterinary Med.	2
4. Agricultural Economist-To be selected	5
5. Agriculturist- To be determined	2
6. Technical Personnel/or Social Scientist To Be Determined	
Total-----	<u>19</u>

Graduate Students- See the item below detailing Education and Training/student support.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Personnel	39,750
Travel	20,000
Supplies	1,875
Total-----	<u>\$61,625</u>

2. Community Organization

a. Description

This research will involve the planning and carrying out of a study on the forms of community organization in an LDC, with particular emphasis being placed on the patterns of human interaction in the traditional agricultural sectors, and intracommunal and intercommunal relations. The research foci will include the patterns of authority and leadership in traditional and peasant communities, problem-solving processes, means for settling disputes, formal and informal social structure, kinship, alliances, communication networks, factionalism, formal and informal education, ethnicity, social and economic stratification, norms and social control. The purpose of this research is to reach a better understanding of social processes at the community level so that development programs can be designed with optimal probabilities for acceptance, participation, and cooperation by the members of local communities.

The research team will be composed of two rural sociologists, two anthropologists, one economist, and two graduate students. The 211(d) Program Director will designate one team member to serve as Community Organization Research Coordinator; this individual will assume responsibilities for planning, liaison, and administration for the research project under the supervision of the Program Director.

b. TIME SCHEDULE - NARRATIVE

Objective: Research/Community Organization

TIME	ACTIVITY	COMMENTS
1. October 1978	Selection of Research Coordinator	
2. November 1978	Identify Geographical Area	Input from AID needed
3. December 1978	Selection of Research Site	Input from AID needed
4. January-April 1979	On Campus Planning	
5. May-August 1979	In County Data Collection	Some logistic help needed.
6. September-Dec. 1979	Analysis of Data	
7. January 1980	Report Writing	
8. February 1980	Publication of Report	

c. Outputs

The results of this research project will include increased data on an understanding of the forms of community organization in LDC's, and an improved methodological capability for the planning and implementation of development packages so that there will be increased probabilities for effective extension work with client acceptance and cooperation. The program will also serve to establish linkages with LDC's, AID missions, improve the consultation capabilities of faculty members, and train graduate students majoring in development-related specializations. The completion of the project will be indicated by the submission of graduate student thesis, the writing of research reports, and the publication of research findings.

d. Personnel

<u>STAFF</u>	<u>Man Months</u>
1. Glenn Howze- Rural Sociologist	4
2. Rural Sociologist-to be determined	4
3. Agricultural Economist-to be determined	4
4. William Vickers-Anthropologist	4
5. Anthropologist	3
Total-----	19

Graduate Students- See the item below detailing Education and Training/student support.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Personnel	42,000
Travel	25,000
Supplies	1,875
Total-----	\$68,825

3. Marketing

a. Description

The primary activity will be to plan and conduct a program of research on the marketing systems in which the rural population of an LDC is enmeshed. The investigation will focus on both the macro-economics of the nation and region and the micro-economics of peasant food producers and households, as well as linkages in the marketing system, marketing centers and their associated hinterlands, transportation concepts of "wealth", patterns of production and distribution, capital investment, credit, economic specialization, commercial interests, and energy resources.

The research on marketing systems will be carried out by an interdisciplinary team consisting of one economist, one agricultural economist, one agricultural scientist, one rural sociologist, one economic anthropologist, and two graduate students. A Marketing Systems Research Coordinator will be selected by the 211(d) grant Program Director and will assume administrative responsibilities for project design, implementation and writeup under his direction.

b. TIME SCHEDULE - NARRATIVE

Objective: Research/Marketing

TIME	ACTIVITY	COMMENTS
1. October 1979	Selection of Research Coordinator	Should be an agriculturist
2. November 1979	Identify Geographical Area	AID Input needed
3. December 1979	Selection of Research Site	AID Input required
4. January-April 1980	On-Campus planning	
5. May-August 1980	In-County Data Collection	Some logistic help required
6. September-Dec. 1980	Analysis of Data	
7. January 1981	Report Writing	
8. February 1981	Publication of Report	

c. Outputs

The outputs of this research program will be increased analytical capability for marketing systems study and modification, the identification of key factors in traditional economic systems, increased sensitivity to the economic rationale of traditional food producers, motivational factors, experience in formulating compatible alternatives and improvements for native productive and distributive systems, an increased data based on traditional marketing systems and modification strategies, and graduate student training. The end-of-work status indicators will be the completion of reports, theses, and publication of findings.

d. Personnel

<u>STAFF</u>	<u>Man Months</u>
1. Agricultural Economist-to be selected	5
2. Agricultural Scientist -to be selected	5
3. Rural Sociologist	4
4. Economist/Anthropologist	4
Total-----	<u>18</u>

Graduate Students- See the item below detailing Education and Training/student support.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Personnel	\$44,250
Travel	25,000
Supplies	1,375
Total-----	<u>\$70,625</u>

4. New Lands Management

a. Description of Research

The program in New Lands Management will involve the formulation and implementation of a research project dealing with a pioneer zone in a LDC where new lands are being settled and brought into production by means of such processes as planned colonization, spontaneous colonization, irrigation, land reclamation, construction of roads of penetration, or commercial operations. The research foci will include administrative policy, pioneer recruitment, motivation and level of expectations, push-pull factors in population movements, transportation, agricultural credit and extension services, educational services, land registration, turnover rate among pioneers, entrepreneurial activities, emerging social structures, and the "fit" of agricultural technologies and practices in new habitats. The object of this research is to improve our capability to formulate new lands management policy by identifying the economic, social, and physical services and resources needed to meet the fundamental needs of pioneer populations and to insure the long-term utilization of the land without environmental degradation.

The interdisciplinary research team for new lands management will consist of one agricultural economist, one agricultural scientist, one veterinarian, one rural sociologist, one applied anthropologist, and two graduate students. The 211(d) Program Director will designate a New Lands Management Research Coordinator who will assume intermediate administrative responsibilities for planning, liason, implementation and analysis.

b. TIME SCHEDULE - NARRATIVE

Objective: Research/New Lands Developed

TIME	ACTIVITY	COMMENTS
1. October 1980	Selection of Research Coordinator	
2. November 1980	Identify Geographical Area	Aid Input needed
3. December 1980	Selection of Research Site	Aid Input required
4. January-April 1981	On-Campus planning	
5. May-August 1981	In-County Data Collection	Some logistic help required
6. September-Dec. 1981	Analysis of Data	
7. January 1982	Report Writing	
8. February 1982	Publication of Report	

c. Outputs

The outputs of this research program will include an increased data based on the characteristics and problems of new lands projects in LDC's, the development of planning and management expertise for technical assistance in these programs, the development of innovative models for new lands programs, training for graduate students, increased faculty capability for consultation, and the formation of linkages with LDC's and AID missions. End-of-work status will be indicated by the preparation of research reports, publications, and completed graduate student thesis.

d. Personnel

<u>STAFF</u>	<u>Man Months</u>
1. Rural Sociologist-to be selected	5
2. Agricultural/Economist-to be selected	4
3. Veterinarian- to be selected	3
4. Agricultural Scientist-to be selected	3
5. Anthropologist-to be selected	4

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Personnel	\$48,000
Travel	20,000
Supplies	1,375
Total-----	<u>\$69,375</u>

III. B. Education and Training

The purpose of the education and training aspects of the grant is to:

1. Increase Tuskegee's response capabilities in agricultural and rural development.
2. Create interest in and train minority graduate and undergraduate students in rural development and international agriculture.

Four major sub-activities will be supported.

1. Student Support

a. Description

In order to increase the interest of minority students in international rural development and agriculture, the project will support both graduate and undergraduate students in the social sciences and other disciplines related to international development. It is

anticipated that the graduate students will use data from these projects for their thesis. Undergraduate students will be employed in on-campus project activities. All will be involved in special courses, seminars and workshops dealing with interdevelopment.

b. TIME SCHEDULE - NARRATIVE

Objective: Education and Training/Student Support

TIME	ACTIVITY	COMMENTS
1. October 1977	Approval of Selection Committee	
2. October 1977	Selection 2 undergraduate and 2 graduate students for 77-78 and 78-79 school years.	
3. May-August 1978	Foreign Research Experience for Graduate Students	
4. June 1978	Selecting 2 additional students and 2 additional graduate students for 78-79 and 79-80 academic years.	
5. May-August 1979	Foreign Research Experience for Graduate Students	
6. June 1979	Selection of 3 new undergraduate and 3 graduate students for support for 79-80 and 80-81 academic year.	
7. May-August 1981	Foreign Field Research Experience for graduate students.	
8. May 1982	Student support terminates	

c. Outputs

The expected outputs for this sub-activity will be nine graduate students and nine undergraduate students trained in international development.

d. PersonnelSTAFF - None

<u>STUDENT YEAR</u>	<u>GRADUATE #</u>	<u>UNDERGRADUATE #</u>
Year 1	2	2
Year 2	4 (2 new)	4 (2 new)
Year 3	5 (3 new)	5 (3 new)
Year 4	5 (2 new)	5 (2 new)
Year 5	2	2

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Undergraduate students stipend	36,000
Graduate students stipend	90,000
Total---	\$126,000

2. Workshop and Seminars

a. Description

A regular series of workshops and seminars dealing with small scale agriculture and international rural development is planned. Workshops and seminars will be designed to complement the research activity and thus will focus on farming systems, community organization, marketing and new lands management. Also, attention will be forseen on the socio-economic and cultural characteristics of the research sites.

Workshops will be of a general nature and will employ several outside expert consultants and a project staff. Seminars will deal with specific problems related to research and will usually employ only a single outside expert.

When possible, both the workshops and seminars will be integrated with appropriate undergraduate and graduate courses.

b. Time Schedule - Narrative

Objective: Education and Training/Workshops and Seminars

DATE	ACTIVITY	COMMENTS
1. January 1978	Seminar on Farming System	Outside Consultant
2. February 1978	Seminar on Socioeconomic and cultural characteristics of research site	Outside Consultant
3. March 1978	Workshop to design specific research project	Outside Consultants and Project Staff
4. December 1978	Seminar on Findings for research on Farming Systems	Conducted by project staff.
5. January 1979	Seminar on Community Organizations	Outside Consultant
6. February 1979	Seminar on Socioeconomic and cultural characteristics of research site	Outside Consultant
7. March 1979	Workshop to design specific research projects	Outside Consultant Project Staff
8. December 1979	Seminar to report research findings on community organizations	Project Staff
9. January 1980	Seminar on Marketing	Outside Consultant
10. February 1980	Seminar on Socioeconomic and cultural characteristics of research site	
11. March 1980	Workshop to design research project	Outside consultant and Project Staff

DATE	ACTIVITY	COMMENTS
1. January 1981	Seminar in "New Lands" Development	Outside Consultant
2. February 1981	Seminar on Socioeconomic and cultural characteristics of research site	Outside Consultant
3. March 1981	Workshop on research design	Outside Consultant and project staff
4. December 1981	Seminar on findings of research on "New Lands" and Development	Project Staff
5. January 1982	Seminar-topic to be determined	Outside Consultant
6. February 1982	Seminar-topic to be determined	Outside Consultant
7. March 1982	Workshop-Tuskegee's role in potential Development	Outside Consultant and project staff
8. July 1983	Seminar to evaluate 211-d project	Project staff-USAID/TAB/ESP

c. Outputs

The expected output for this sub-activity will be five workshops and 15 seminars. Summaries of the workshops will be available. The first four workshops should produce the research design's further research activities.

d. Personnel

The project director will schedule all Seminar and workshop activities in consultation with the research-coordinator. The consultants will be hired on a per day basis.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Consultant fees and per diem	\$15,000
Supplies and Communities	7,000
	<u>\$22,000</u>

3. Curriculum Modification

a. Description.

In order to improve its educational offerings in international rural development, Tuskegee Institute will:

- a. Revise appropriate existing course offerings in the social sciences.
- b. Add new courses dealing with international development.
- c. Increase the faculty in areas related to international development.

It is anticipated that during the first two years of the project appropriate courses in economics, agricultural economics, sociology and anthropology will be modified in order to a more international and developmental perspective. In some cases specific segments dealing with development problems will be introduced into the course. In other cases, new material will be added to existing segments. It is anticipated that three man-months of efforts during each of the first two years will be required.

Approximately three new courses dealing with development will be added to agricultural economics and two new related courses to sociology/anthropology. These course additions will necessitate the two new faculty positions, one in agricultural

economics and the other in developmental anthropology. It is anticipated that the courses will have sufficient enrollment to be maintained after the expiration of the grant.

TIME	ACTIVITY	COMMENTS
1. September-Dec. 1977	Recruiting of Anthropologist	Sociology faculty
2. November 1977-March 1978	Recruiting of Agricultural Economist	Agriculture faculty
3. Spring 1978	Two courses in Sociology modified to increase development content.	
4. Spring 1978	Two new developmental Anthropology courses	
5. Fall 1978	Two agricultural economics courses modified and offered	
6. Fall 1978	One Sociology course modified and offered	
7. Fall 1978	One new developmental Anthropology offered.	
8. Spring 1979	Two Agricultural Economics courses modified and offered	
9. Spring 1979	One new developmental anthropology course offered.	
10. Fall 1979-Spring 1982	Developmental courses offered on a rotational basis	

c. Outputs - the outputs for this sub-activity will be:

- a. Three to five existing courses modified to contain sections related to international development.
- b. Three new agricultural economics and four new sociology/anthropology courses related to international development.
- c. The new faculty positions-one agricultural economist and one developmental anthropologist.

d. Personnel

<u>STAFF</u>	<u>Man Months</u>
1. Agricultural Economist	45*
2. Developmental Anthropologist	45*
3. Faculty Release time for courses modification	6

*Note! The positions are budgeted so that Tuskegee picks up an increasing share of the costs of the positions.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Personnel	\$123,200.
Total-----	\$123,200.

4. Faculty Training

a. Description

In order to upgrade faculty skills the project will support faculty training related to international development work. The major activity to be supported will be intensive language training for about four faculty members. In addition, faculty will be supported to attend short courses sponsored by USAID.

b. TIME SCHEDULE - NARRATIVE

Objective: Education and Training/Faculty Training

<u>TIME</u>	<u>ACTIVITY</u>	<u>COMMENTS</u>
1. September 1977-August 1978	Three to four faculty participants attend USAID or related workshops and seminars	Arranged by USAID/TAB/ESP
2. May-August 1978	Intensive Foreign language training for one faculty member.	

TIME	ACTIVITY	COMMENTS
3. September 1978-August 1979	Three to four faculty participants attend USAID or related workshops and seminars.	Arranged by USAID/TAB/ESP
4. May - August 1979	Intensive Foreign Language training for 2nd faculty members.	
5. September 1979-Aug. 1980	Three to four faculty participants attend USAID or related workshops and seminars	Arranged by USAID/TAB/ESP
6. May-August 1980	Intensive Foreign language training for 3rd faculty member	
7. September 1980-Aug.1981	Three to four faculty members attend USAID or related workshops and seminars	
8. May-August 1981	Intensive Foreign language training for 4th faculty member	
9. September 1981-Aug. 1982	Three to four faculty members attend USAID or related workshops	

c. Outputs

Three man-months per year of such training will be supported by the grant.

The outputs for this sub-activity are:

- a. Four faculty members trained in a foreign language.
- b. Faculty members trained at USAID in relevant subjects such as project design.

d. Personnel

<u>STAFF</u>	<u>Man Months</u>
Release time for 4 faculty members to receive language training.	12
Release time for faculty to attend workshops.	5
Total----	17

e. Costs

<u>Item</u>	<u>Amount</u>
Personnel	\$27,000
Travel	2,000
Sub Control for language training	48,000
TOTAL-----	<u>\$77,000</u>

III.C.

Linkages and Networks

a. Description

Tuskegee Institute will increase its linkages and networks in the area of international rural development and agriculture both domestically and internationally.

1. Domestically, Tuskegee will attempt to increase linkages and networks by:
 - a. Establishing stronger ties with 1862 and 1890 colleges working in the field of international development.
 - b. Developing ties with other minority institutions involved in international work.
 - c. Establishing ties with non-educational institutions working in the international field.
 - d. Participating in professional organizations concerned with international development.
 - e. Continuing to participate in the Southeast consortium on international development (SEGO).
2. Aided by USAID/Washington, Tuskegee will attempt to increase its international linkages and networks by:
 - a. Informing USAID missions concerning Tuskegee's interest and experience in international development.
 - b. Making contact with LDC's and providing them with information concerning Tuskegee and its faculty.

- c. Increasing contacts with other donor organizations such as FAO, foundations, and the World Bank.

b. TIME SCHEDULE - NARRATIVE

Objective: Linkages and Networks

TIME	ACTIVITY	COMMENTS
1. November 1977	Visit to USAID/W Office	
2. November 1977	Letters to relevant agencies and universities and contractors describing 211-d Project	
3. December 1977	Publication of pamphlet describing Tuskegee and its capacity for international work.	
4. December 1978	Revision of pamphlet	
5. December 1979	Revision of pamphlet	
6. December 1980	Revision of pamphlet	
7. December 1980	Revision of pamphlet	
8. September 1977 - August 1982	Participate in relevant professional organizations.	

c. Outputs

The anticipated outputs are:

1. Increased participation by Tuskegee Faculty in development activities.
2. Increased involvement by Tuskegee in international activities.

d. Personnel

Three man-months of faculty time will be devoted to developing linkages and networks.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Personnel	\$ 6,400
Domestic Travel	10,000
Foreign Travel	13,000
	<u>\$ 29,400</u>

III.D. Advisory and Consultation Services

a. Description

Tuskegee will make available faculty members in economics, agricultural economics, sociology, anthropology and other areas related to agricultural and rural sector policy analysis so that they may be available to AID and LDC's for short-term advisory and consultation services in such areas as project design, analysis and evaluation.

It is expected that requests for such services will be made so as to minimize any adverse effects on the educational program at Tuskegee Institute. This will involve providing ample lead time so that faculty can adequately arrange their work schedules and where possible the scheduling of such activities to correspond with breaks in the academic calendar.

b. Two Schedules:

Objective: Advisory and Consultant Services

The time schedule for this activity, will be determined jointly by project staff and the project manager for USAID/TAB/AGR/ESP. Tuskegee will make available four man months per year for this activity.

c. Outputs

The expected output from this activity is increased usage by USAID of Tuskegee personnel for short-term assignments. Also, Tuskegee will create and maintain a handbook detailing its interest and experience in international work and containing resumes of faculty interested in international work.

d. Personnel

Four man months per year, a total of 20 man months of faculty time will be devoted to this activity.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Personnel	\$ 46,400
Travel	<u>20,000</u>
	\$ 66,400

It is also expected that USAID and other organizations requesting services will provide travel, per diem and necessary logistic support for such services. Furthermore, it is understood that grant funds will be used for such activities only when the activities clearly are in the best interest.

III.E.

Information Capacity

a. Description

1. Acquisition of Library Resources

The principle activity will be the evaluation, selection, and acquisition of books, journals, films and other materials relevant to international development for the Tuskegee Institute library. This will include titles from such fields as agricultural economics, economics, sociology, anthropology, agricultural science, veterinary medicine, community development, and international development. A committee of five members representing various academic disciplines will be designated by the 211(d) Program Director to survey the publications in their fields and to suggest titles for acquisition. After the proposed acquisition list has been drawn up it will be circulated to the various departments involved in 211 (d) activities for comments and suggested additions. Following this the Program Director will approve the final list and authorize the purchase of materials. A list will be compiled each academic year under the grant.

2. Acquisition of Computer Models and Data Bases

The main activity will be to evaluate and purchase computer models and data bases relevant to international rural development, including models for demography, agricultural systems, and economic systems. The information capacity committee (see above) will have responsibility for their activity.

3. Publication of Research Reports and Workshop Proceedings

This activity will consist of data analysis, manuscript preparation, publication, and dissemination of information developed as a result of 211(d) grant activities in international rural development. Report writing and publication are integral aspects of the research process as these responsibilities bring the scientist's focus to the analysis of data collected in the field during the earlier phasis of the research, and enable him to communicate his findings to professional colleagues. For these reasons all faculty members participating in 211(d) research projects will be responsible for the preparation of research reports and manuscripts to be considered for publication. The primary responsibility of graduate students will be to report their research activities in thesis, but they will also be encouraged to prepare manuscripts for publication if their work is judged to be of high quality.

b.

TIME SCHEDULE

The activities of acquisition and publication are on-going and it is difficult to place them within a time frame. Most of the acquisitions will be determined by the needs of the Research, Education, and Training activities. As needs develop, purchases will be made. Lectures publications will occur as outputs from the research and

seminars development.

c. Outputs

The outputs for this activity are:

1. Increased library holdings in international development.
2. Increased data analysis capabilities
3. Publication of research reports and workshop proceedings.

d. Personnel

The project director will coordinate this activity.

e. Costs

<u>ITEM</u>	<u>AMOUNT</u>
Equipment, books, computer, software, etc.	\$20,000
Supplies and Communication	7,000
	<u>\$27,000</u>